Final Program Environmental Impact Report

Orange County Affordable Housing Implementation Plan—Ranch Plan

IP# 15-157

SCH No. 2015051062

Prepared for
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Acronym List

Acronym	Acronym and Abbreviation Description
A	
AAM	Annual Arithmetic Mean
AB	Assembly Bill
ACC	Advanced Clean Cars Program (CARB)
ADT	average daily trips made by vehicles or persons in a 24-hour period
af	acre-feet
afy	acre-feet per year
AHIA	Affordable Housing Implementation Agreement
AM	morning (before noon)
AMI	Area Median Income
AMP	Allen-McColloch Pipeline
AQMP	Air Quality Management Plan
B	
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BAT	best available technology economically achievable
BAU	business as usual
BCT	best conventional pollutant control technology
BMPs	Best Management Practices (or Programs)
C	
°C	degrees Celsius
CAA	Clean Air Act (federal)
CAA	Community Analysis Area
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	criteria air pollutant
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building and Standards Code
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDR	Center for Demographic Research
CEC	California Energy Commission
CEQA	California Environmental Quality Act of 1970
CESA	California Endangered Species Act

Acronym	Acronym and Abbreviation Description
CFR	Code of Federal Regulations
CH_4	methane
CMA	Congestion Management Agency
CMP	Congestion Management Program
CMPHS	Congestion Management Program Highway System
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
COG	Council of Governments
CPUC	California Public Utilities Commission
CSUF	California State University, Fullerton
CTR	California Toxics Rule
CSUD	Capistrano Unified School District
CVWD	Capistrano Valley Water District
CWA	Clean Water Act, Federal (1977)
CWRP	Chiquita Water Reclamation Plant
cy	cubic yards
D	
DAMP	Drainage Area Management Plan
dB	Decibel
dBA	decibel, A-weighted
DDA	Disposition and Development Agreement
DDE	Dichlorodiphenyldichloroethylene
diesel PM	Diesel particulate matter
DNL	Day Night Noise Level
du	dwelling unit
DW	domestic water
E	
EDU	equivalent dwelling unit
EIR	Environmental Impact Report (CEQA)
ESCP	Erosion and Sediment Control Plan
F	
°F	degrees Fahrenheit
FEIR	Final Environmental Impact Report (CEQA)
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FIIC	Field Impact Insulation Class
FSTC	Field Sound Transmission Class
ft	foot/feet
FTA	Federal Transit Administration
FTC	Foothill Transportation Corridor

Acronym	Acronym and Abbreviation Description
FTIP	Federal Transportation Improvement Plan
G	
GERA	Gobernadora Ecological Restoration Area
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GMA	Growth Management Area
gpcd	gallons per capita per day
gpm	gallons per minute
GSWC	Golden State Water Company
GWP	Global Warming Potential
H	
H_2SO_3	sulfurous acid
H_2SO_4	sulfuric acid
HAP	hazardous air pollutant
HCD	Housing and Community Development, State of California, Department of
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
HI	Hazard Index
HMP	Hydromodification Management Plan
HOV	high-occupancy vehicle lane
hp	horsepower
HAS	Hydrologic Sub-Area
HVAC	Heating, ventilating, and air conditioning
I	
I	Interstate
IA	Implementation Agreement
ICU	Intersection Capacity Utilization
IFC	International Fire Code
IGR	Inter-Governmental Review
in/sec	Inches per second
IOD	Irrevocable Offer of Dedication
IRWD	Irvine Ranch Water District
IS	Initial Study (CEQA)
ITP	Incidental Take Permit
J	
JURMP	Jurisdictional Urban Runoff Management Program
K	
K	Kindergarten
km	Kilometer
km/hr	Kilometers per hour

Acronym	Acronym and Abbreviation Description
KVA	Kilovoltamps
L	
lbs/day	Pounds per day
LCFF	Local Control Funding Formula
L_{dn}	Day-Night Average Sound Level
L_{eq}	average noise level
LIP	Local implementation plan
L_{max}	maximum noise level
L_{min}	minimum noise level
LOS	Level of Service (traffic flow rating)
LPIP	Local Park Implementation Plan
LST	Localized significance threshold
M	
m	meter
MATES	Multiple Air Toxics Exposure Study in the South Coast Air Basin
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
Metropolitan	Metropolitan Water District of Southern California
MG	million gallons
mg/m^3	milligrams per cubic meter
mgd	million gallons per day
MM	mitigation measure
MMT	million metric tons
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPAH	Master Plan of Arterial Highways (Orange County)
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSAA	Master Streambed Alteration Agreement
MT/yr	metric tons per year
$MTCO_2e$	metric tons of carbon dioxide equivalent
$MTCO_2e/SP/yr$	metric tons of carbon dioxide equivalent per service population per year
$MTCO_2e/yr$	metric tons of carbon dioxide equivalent per year
MWDOC	Metropolitan Water District of Orange County
N	
N_2O	Nitrous oxide
N/A	Not applicable
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Association
NB	Northbound
NCCP	Natural Community Conservation Plan

Acronym	Acronym and Abbreviation Description
NHTSA	National Highway Traffic Safety Administration (U.S. Department of Transportation)
NO	nitric oxide
NO_2	nitrogen dioxide
NOx	oxides of nitrogen (nitric oxide and nitrogen dioxide)
NOI	Notice of Intent (NEPA)
NOP	Notice of Preparation (CEQA)
NPDES	National Pollutant Discharge Elimination System
O	
O_3	Ozone
OC	Orange County
OCCOG	Orange County Council of Governments
OCFA	Orange County Fire Authority
OCP 2010	Orange County Projections – 2010
OCP-2014	Orange County Projections – 2014
OCPL	Orange County Public Library
OCSD	Orange County Sheriff Department
OCTA	Orange County Transportation Authority
OCTAM	Orange County Transportation Analysis Model
OCWRP	Oso Creek Water Reclamation Plant
OEHHA	California Office of Environmental Health Hazard Assessment
P	
PAH	Polycyclic Aromatic Hydrocarbon
PC	Planned Community
PEIR	Program Environmental Impact Report
PeMS	Performance Management System (Caltrans)
PFC	perfluorocarbon
pH	hydrogen potential
PM	evening (after noon)
PM	Particulate matter
PM2.5	fine particulate matter less than 2.5 micrometers in diameter
PM10	respirable particulate matter less than 10 micrometers in diameter
ppb	parts per billion
ppm	parts per million (used interchangeably with mg/L)
ppv	Peak particle velocity
PRC	Public Resources Code
R	
RCP	Regional Comprehensive Plan (SCAG)
RFP	Request for Proposals
RHNA	Regional Housing Needs Assessment
RMV	Rancho Mission Viejo
RMV MWC	Rancho Mission Viejo Mutual Water Company
ROMP	Runoff Management Plan

Acronym	Acronym and Abbreviation Description
RPDA	Ranch Plan Development Agreement
RPFPP	Ranch Plan Planned Community-Wide Fire Protection Program
RPS	Renewables Portfolio Standard
RSA	Regional Statistical Area
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
S	
SAMP	Special Area Management Plan
SB	Senate Bill
SB	Southbound
SC	Standard Condition of Approval
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCORE	South County Outreach and Review Effort
SCRIP	South County Roadway Improvement Program
SCS	Sustainable Communities Strategy
SCSAM	South County Sub-Area Model
SDG&E	San Diego Gas and Electric
SF_6	sulfur hexaflouride
SFNA	School Facilities Needs Analysis
SFPA	Secured Fire Protection Agreement
SIP	State Implementation Plan
SJAPCD	San Juaquin Valley Air Pollution Control District
SJBA	San Juan Basin Authority
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMWD	Santa Margarita Water District
SO_2	sulfur dioxide
SO_3	sulfur trioxide
SOx	sulfur oxides
SoCAB	South Coast Air Basin
SoCalGas	Southern California Gas Company
SP	Service Population
SR	State Route
SRA	source receptor area
SSHCP	Southern Subregion Habitat Conservation Plan
SSMP	Sewer System Management Plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
T	
TAC	toxic air contaminant
TCA	Transportation Corridor Agencies (Orange County)
TIS	Traffic Impact Study

Acronym	Acronym and Abbreviation Description
TMDL	Total Maximum Daily Load
U	
UAC	Urban Activity Center
UCD ITS	University of California, Davis Institute of Traffic Studies
USACE	U.S. Army Corps of Engineers
USC	*United States Code*
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
V	
V/C	volume-to-capacity ratio
VdB	Vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compounds
vph	vehicles per hour
vphpl	vehicles per hour per lane
W	
WDID	Waste Discharge Identification
WQMP	Water Quality Management Plan
WRP	Water Reclamation Plant
WSA	Water Supply Assessment
WTP	Water Treatment Plant
Symbols	
$\mu g/m^3$	micrograms per cubic meter

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The environmental impact report (EIR) process, as defined by the California Environmental Quality Act (CEQA), requires the preparation of an objective, full-disclosure document in order to (1) inform agency decision makers and the general public of the direct and indirect potentially significant environmental effects of a proposed action; (2) identify feasible or potentially feasible mitigation measures to reduce or eliminate potential significant adverse impacts; and (3) identify and evaluate reasonable alternatives to a proposed project. In accordance with Section 15168 of the State CEQA Guidelines (*California Code of Regulations* [CCR], Title 14, Section 15000 et seq.), this is a Program EIR that addresses the potential environmental impacts associated with the development of affordable housing in Planning Areas 3, 4, 5, and 8 of the Ranch Plan Planned Community ("the Ranch" or "Ranch Plan"), under the proposed Addendum Two to the Affordable Housing Implementation Agreement for Rancho Mission Viejo ("the Project" or "Affordable Housing"). As discussed in Section 1.5 below and in Section 3.4, Description of the Project, the Affordable Housing Implementation Agreement for Rancho Mission Viejo (AHIA) describes Rancho Mission Viejo's (RMV's)[1] obligation to set aside land within the Ranch Plan, for the development of rental housing for low and very low income households. The Proposed Addendum Two to the AHIA ("Addendum Two") allows for the development of the Project by either the County, using County resources, or under the builder-financed Private-Sector Alternative.

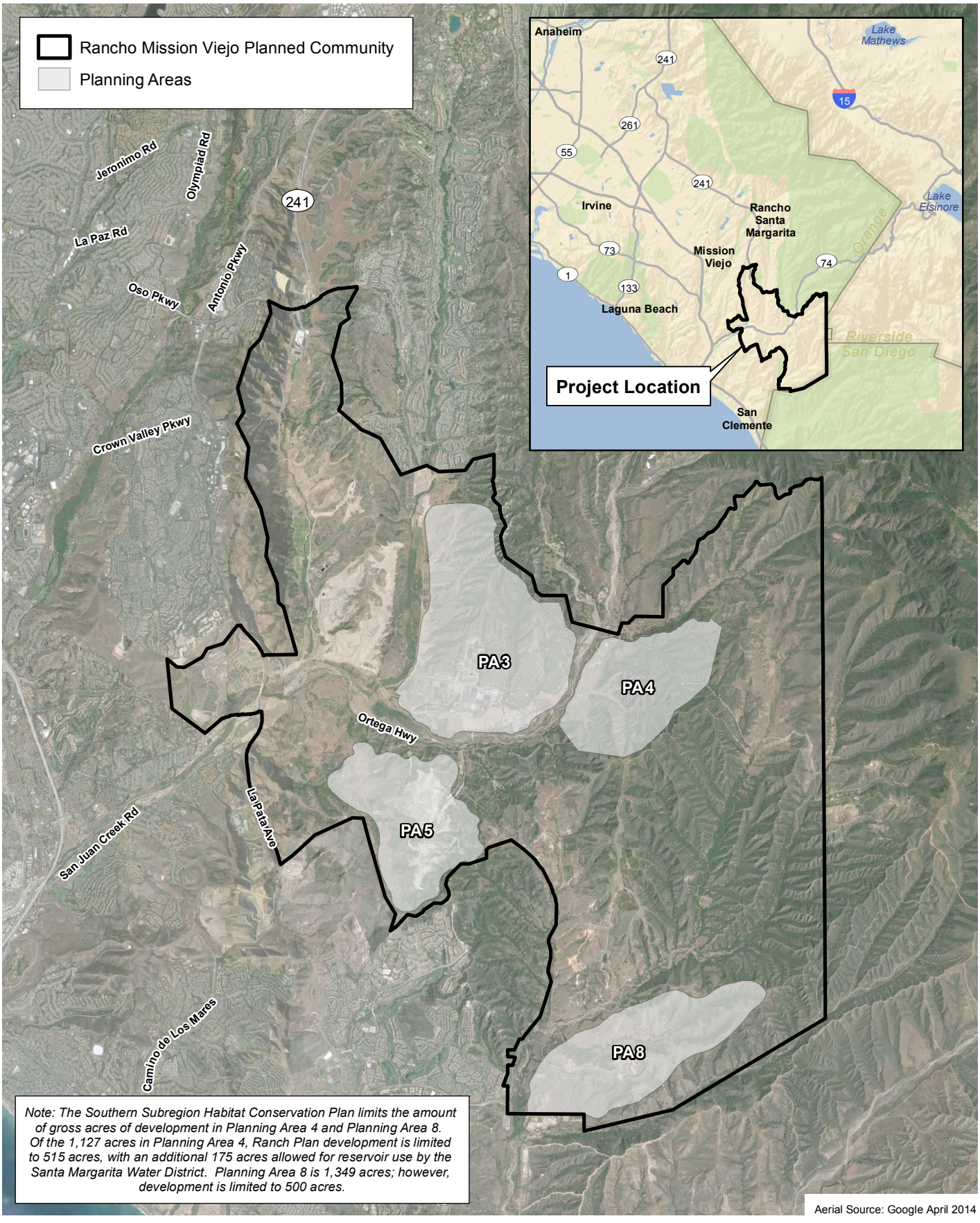
1.2 PROJECT LOCATION

The Project is located within the limits of the Ranch Plan, which is located in unincorporated Orange County, adjacent to the planned community of Ladera Ranch and the cities of San Juan Capistrano and San Clemente on the west; the city of Rancho Santa Margarita on the north; Marine Corps Base (MCB) Camp Pendleton in San Diego County on the south; and Caspers Wilderness Park and the Cleveland National Forest on the property's eastern edge. The regional location and local vicinity are shown on Exhibit 1-1.

1.3 PROJECT BACKGROUND

On November 8, 2004, the Orange County Board of Supervisors approved a General Plan Amendment (Resolution No. 04-291), Zone Change (Resolution No. 04-292 and Ordinance No. 04-014), and Development Agreement (Resolution No. 04-293 and Ordinance No. 04-015) for the Ranch Plan. The approved project allows for the construction of 14,000 dwelling units, 3,480,000 square feet of Urban Activity Center (UAC) uses, 500,000 square feet of Neighborhood Center uses, and 1,220,000 square feet of business park uses. The development is proposed to occur on approximately 5,873 acres, with the remaining 16,942 acres being retained in open space.

[1] The AHIA was entered into between the County of Orange and a certain group of entities collectively defined in the AHIA as "Owner". For the purposes of this EIR, "RMV" will mean Owner, as defined in the AHIA and the Development Agreement for the Ranch Plan.



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Regional Location and Local Vicinity

Exhibit 1-1

Orange County Affordable Housing Implementation Plan Program EIR

N W E S

1.5 0.75 0 1.5

Miles

BonTerra PSOMAS

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On July 18, 2006, the AHIA was approved pursuant to the Development Agreement for the Ranch Plan. The AHIA generally requires that RMV provide the County with various sites that are between 2 and 10 acres in size, for a total of 60 gross acres of property (the "Dedicated Lands"), for the development of affordable housing for households qualifying as low or very-low income households, as defined in the Orange County Housing Element. The Affordable Housing developed on property provided pursuant to the AHIA is not counted against the 14,000 dwelling units approved as part of the Ranch Plan; however, no additional acreage would be devoted to development. The Project would be within the graded development areas of the Ranch Plan.

As discussed in Section 2.6.2, Addendum Number One to the AHIA was approved by the County Board of Supervisors on December 17, 2013. Addendum One authorizes the Private-Sector Alternative method of development for affordable housing in Planning Areas 1 and 2 of the Ranch Plan. Under the Private-Sector Alternative, RMV would provide all required infrastructure at no cost to the County. In exchange, RMV would receive a Dedicated Lands credit that is equal to the actual gross acreage of the housing site(s) multiplied by a factor of two (for example, a five-gross-acre site that is developed under the Private-Sector Alternative would receive a Dedicated Lands Credit of ten gross acres).

Consistent with Addendum One to the AHIA, RMV is currently implementing two affordable housing projects in Planning Areas 1 and 2. The first project is in Planning Area 1, in the northeast quadrant of the Antonio Parkway/Ortega Highway intersection. The second project is within Planning Area 2 (north of Cow Camp Road and west of Los Patrones Parkway). Combined, these projects will provide 219 affordable units on 7.8 gross acres. Because these units are being developed pursuant to the Private-Sector Alternative, a Dedicated Lands credit of 15.6 gross acres will be provided to RMV.[2] As a result, RMV is subject to a remaining Dedicated Lands obligation of 44.4 gross acres required under the AHIA. If, however, the AHIA is further modified (as proposed in Addendum Two) to allow for the Private-Sector Alternative to be used to develop affordable housing in other Ranch Plan Planning Areas (i.e., Planning areas 3, 4, 5, or 8) and if this method of development is actually employed in any of these Planning Areas, the actual gross acres to be developed under the Project may be less, based on the calculation of Dedicated Lands credit under the Private-Sector Alternative. This is discussed further in the definition of the scenarios provided in Section 3.4.1.

The AHIA is discussed in more detail in Section 2.6.2 of this Program EIR.

[2] Separate CEQA documentation was prepared for affordable housing projects in Planning Areas 1 and 2.

1.4 PROJECT SETTING

The Project site is located within the Ranch Plan. The General Plan land use designations within the Ranch Plan include Suburban Residential, Open Space, Open Space Reserve, Urban Activity Center, Employment, and Public Facilities (County of Orange 2005). The site is zoned PC, Planned Community.[3] Of the 22,683 acres within the Ranch Plan, approximately 16,915 acres (or approximately 74.57 percent) are identified for open space uses with 5,768 acres for development uses. Planning Areas 1 and 2 are currently being developed. The Project concerns development of Affordable Housing on sites that would be located in Planning Areas 3, 4, 5, and 8.

To the north and west of the Ranch Plan are the cities of Rancho Santa Margarita, Mission Viejo, San Juan Capistrano, and San Clemente. Other large land developments in unincorporated Orange County and in the vicinity of the Project site include the planned communities of Las Flores, Coto de Caza, and Ladera Ranch. MCB Camp Pendleton in San Diego County borders the southern edge of the Ranch Plan; Caspers Wilderness Park and the Cleveland National Forest, as well as several private properties in Riverside and San Diego counties, border the site on its eastern edge.

Regional access to the Ranch Plan is via Interstate (I) 5 and State Route (SR) 241. Antonio Parkway/La Pata Avenue provides north-south arterial highway access, and Avenida Pico in the City of San Clemente runs east-west and terminates near the southwestern boundary of the Planned Community.

RMV is a participating landowner in the Southern Subregion Habitat Conservation Plan (HCP). The purpose of the HCP is to provide long-term, large-scale protection of natural vegetation communities and wildlife diversity while allowing compatible land uses and appropriate development and growth. The Ranch Plan is a covered activity under the Incidental Take Permits (ITPs) issued by U.S. Fish and Wildlife Service (USFWS) pursuant to the HCP.

1.5 PROJECT DESCRIPTION

As indicated above, the Project consists of the development of affordable housing in Planning Areas 3, 4, 5, and 8 of the Ranch Plan, under the proposed Addendum Two to the AHIA, which would allow, but not require, the use of the Private-Sector Alternative in Planning Areas 3, 4, 5, and 8 of the Ranch Plan. The Private-Sector Alternative provides an alternative method for developing Affordable Housing sites that permits builder financing and provides necessary Project infrastructure at no cost to the County. Regardless of financing method, the Dedicated Lands will be developed as affordable rental housing at no less than 25 dwelling units per net acre. The development standards would comply with the *Ranch Plan Planned Community Program Text* which, as the applicable comprehensive zoning program, provides the guidance for conservation, management, and development of the Ranch Plan.

[3] The *Ranch Plan Planned Community Program Text* provides the regulations and procedures that apply to each of the land use categories approved as a part of the Ranch Plan (County of Orange 2004b). The regulations and standards adopted as part of the *Ranch Plan Planned Community Program Text* would apply to the development and implementation of the Affordable Housing Project because it is the underlying zoning for the site. In those cases where the standards differ from the Orange County Zoning Code, the *Ranch Plan Planned Community Program Text* standards would provide the applicable regulations.

Rather than address a single "proposed project", the Program EIR addresses three development scenarios and the No Project Alternative at a comparable level of detail within the body of the report. These scenarios reflect various levels of development using the Private-Sector Alternative. Project implementation methods, including developing the Project entirely under the builder-financed Private-Sector Alternative, the County developing the Project in reliance on public resources (i.e., without any builder financing), and a combination of both private-sector and public-sector resources. These scenarios result in a range in the number of units that would be developed on the Affordable Housing sites in the Ranch Plan. In all three scenarios, affordable rental housing, at a density of no less than 25 dwelling units per net acre, and would be distributed throughout the remaining Planning Areas within the Ranch Plan.

The scenarios are discussed in more detail in Section 3.4 of this Program EIR and are summarized below:

- **Scenario 1: Full Private-Sector Scenario.** This scenario assumes the entire Project would be developed under the Private Sector Alternative, which relies entirely on builder financing. Under this method, the associated infrastructure would be provided at no cost to the County. Under the Full Private-Sector Scenario, Affordable Housing would be developed on 22.2 gross acres provided under the AHIA, netting approximately 555 Affordable Housing units. RMV would receive a 44.4-gross-acre Dedicated Lands credit under the Full Private-Sector Scenario. The only significant unavoidable impacts identified with this scenario are a short-term cumulative construction air quality impacts and the greenhouse gas (GHG) emissions under the project-level threshold. This scenario is able to meet all of the Project Objectives (identified in Section 1.6).
- **Scenario 2: Combined Public- and Private-Sector Scenario.** This scenario assumes the Project would be developed with a combination of public-sector resources and builder financing (i.e., the Private-Sector Alternative).[4] This scenario will provide flexibility based on funding availability at the time the market rate units in the Ranch Plan are constructed. For purposes of the CEQA analysis, this scenario applies the Private-Sector Alternative as the method of development for a third of the remaining acres required to be set aside for the Project (equivalent to 14.8 acres). The second third, approximately 14.8 acres, is assumed to be developed by the County, using public-sector resources. The remaining third (14.8 acres) would be the additional Dedicated Lands credit allowed for use of the Private-Sector Alternative. Under this scenario, 29.6 gross acres of Affordable Housing would be developed, netting approximately 740 Affordable Housing units. The only significant unavoidable impacts identified with this scenario are a short-term cumulative construction air quality impacts and the GHG emissions under the project-level threshold. This scenario is able to meet all of the Project Objectives.
- **Scenario 3: Full Public-Sector Scenario.** This scenario assumes the Project would be developed by the County using public-sector resources and no builder financing.

[4] With the public-sector alternative, the County would provide funding for infrastructure and direct financial assistance to builders to provide the affordable housing. The County or their builder would be responsible for pursuing the necessary funds and financing required to construct the units and ensure they stay affordable. The *Orange County General Plan*, Housing Element identifies a wide variety of federal, state, and local public programs that are available to support affordable housing. Due to the high costs of developing and preserving affordable housing and limitations on the amount and uses of funds, a variety of funding sources may be required. These programs include, but are not limited to the Community Development Block Grant program, Section 811/202 Program, and the California Housing Finance Agency (CalHFA) Multifamily Rental Housing Programs. Funding availability varies.

Addendum Two to the AHIA is not required to implement this scenario; however, it is assumed that sufficient public sector resources would be available to enable the County to develop each site as it becomes available. Under this scenario, affordable housing would be developed on 44.4 gross acres, yielding approximately 1,110 Affordable Housing units. The only significant unavoidable impacts identified with this scenario are a short-term cumulative construction air quality impact and the GHG emissions under the project-level threshold. This scenario is able to meet all of the Project Objectives.

- **No Project Alternative.** There are two variations of the No Project Alternative. The first variation is if Addendum Two to the AHIA is not approved and potential effect that would have on the implementation of affordable housing units in Planning Areas 3, 4, 5, and 8. The second variation is the no development of affordable housing in these planning areas.

  If Addendum Two to the AHIA is not approved it would preclude the opportunity to use the Private-Sector Alternative for the development of Affordable Housing units in Planning Areas 3, 4, 5, and 8. This would not preclude the development of the Affordable Housing units in these planning areas rather it would require that sufficient public-sector resources would be available for the development of the units. If there is sufficient public-sector resources available for all the identified Affordable Housing sites, the impacts associated with the development would be the same as those identified for Alternative 3, which also assumes full reliance on public-sector resources. If sufficient public-sector resources are not available, as provided for in the AHIA, it is possible that Dedicated Lands would be returned to RMV and not be developed with Affordable Housing. Therefore, the total amount of Dedicated Lands that gets developed with Affordable Housing in Planning Areas 3, 4, 5, and 8 could range between 0 acres (if no public-sector resources are available) to 44.4 acres (if sufficient resources are available to develop all the acreage RMV makes available for Affordable Housing sites). This would result in a range of 0 Affordable Housing units to 1,110 Affordable Housing units. Though the total number of units could be less than the range provided by the Project Scenarios discussed above, the nature of the impacts would be similar to those evaluated in this EIR and a separate analysis of this variation of the No Project Alternative is not evaluated separately in the EIR.

  The second variation of this alternative assumes that the Project would not be implemented, and thus, there would be no development of Affordable Housing in Planning Areas 3, 4, 5, or 8 of the Ranch Plan. Under this Alternative, which is required by CEQA, assumes any property offered for Affordable Housing pursuant to the AHIA would be returned to RMV; as such, no additional development beyond the approvals provided in the Ranch Plan (and the two affordable housing sites currently being developed in Planning Areas 1 and 2) would be allowed. Henceforth, all reference to the "No Project Alternative" is referencing the No Project/No Development of Affordable Housing Units Alternative. No significant unavoidable impacts were identified with this alternative; however, this alternative would not meet the Project Objectives.

1.6 PROJECT OBJECTIVES

The following objectives have been identified for the Project:

1. To provide Affordable Housing in the unincorporated portion of Orange County consistent with the goals of the County Housing Element.
2. To utilize opportunities under the AHIA to assist the County in meeting the Regional Housing Needs Assessment (RHNA) allocation for affordable housing in unincorporated areas of the County.
3. To identify a reliable method for implementation of the Project within the Ranch Plan, allowing for flexibility in light of uncertain future resources of the County of Orange.
4. To provide affordable housing opportunities that meet the demand of a substantial portion of the lower income population in Orange County.

1.7 ALTERNATIVES

In accordance with Section 15126.6(a) of the State CEQA Guidelines, Section 5 of the EIR focuses alternatives. CEQA requires the evaluation of the No Project Alternative, which for this Project has been evaluated at an equal level of considered in Sections 4.1 through 4.10. Additionally, the EIR provides equal consideration of the three Project development scenarios that assume varying levels of use of the Private-Sector Alternative, and therefore, different levels of development. Though various development scenarios were evaluated in Section 4, all the development alternatives would contribute to cumulative construction air emissions and result in significant GHG impact. When a significant impact has been identified, CEQA requires an alternative to be evaluated that is capable of avoiding or substantially lessening any potentially significant effects of the Project.

The finding of a contribution to a cumulative construction air pollutant emissions is an acknowledgement that construction of the Affordable Housing units at each site would occur in conjunction with development of the remainder of the each Ranch Plan Planning Subarea. The Ranch Plan Program EIR No. 589 concluded that there would be significant and unavoidable construction emissions impacts, with an emphasis on NOx emissions. Mitigation measures have been identified that reduce the potential Project's contribution to construction emissions; however, since the determination is based on the findings of FEIR 589, there is no alternative that would reduce these impacts to less than significant. Therefore, the alternative analysis focuses on the potential to reduce the GHG emissions, the only other significant impact.

Section 5.3 of this EIR discusses Alternatives Considered But Not Carried Forward because they were identified as not being feasible. The following four alternatives received preliminary evaluation but were not carried forward:

- **Alternative Site Alternative**—This includes a discussion that explains development of the Project on an alternative site was deemed not to be reasonable because the Project is consideration of Addendum Two to the AHIA for the Ranch Plan and the impacts associated with implementation of the Affordable Housing associated with the AHIA; therefore, the Project cannot be located other than in the Ranch Plan.

- **Increased Density Alternative**—An assessment was done to determine if increasing the density of the Affordable Housing would be able to increase the overall efficiency of the Project; thereby, reducing the GHG impacts to less than significant. Increasing the density would have minimal reduction on the efficiency level in terms of the South Coast Air Quality Management District's (SCAQMD's) thresholds. The key contributors to GHG emissions are energy, mobile emissions, solid waste and water. A substantial increase in density would have little or no change in emissions from mobile, energy, indoor water usage, and solid waste. These factors are linked to the number of users. Without an effective alternative mode of transportation (regional transit), increasing the density alone would not reduce the emissions factors. Therefore, this alternative was not carried forward.
- **Reduced Development Alternative**—An assessment was done to determine how many units of affordable housing would be able to be developed without resulting in a significant project-level impact. This analysis focused on the amount of development that could be constructed and not exceed the SCAQMD-recommended bright-line screening threshold of 3,000 metric tons of carbon dioxide equivalent per year ($MTCO_2e$/year). With this Alternative approximately 236 dwelling units or approximately 9.5 acres of the Dedicated Lands would be permitted if the units were family units (all ages) and 267 dwelling units or approximately 10.7 acres of Dedicated Land assuming 25 percentage-qualified residents. This alternative was not carried forward because it would not effectively meet the Project Objectives.

1.7.1 AGE-QUALIFIED ALTERNATIVE

The Age-Qualified Alternative would follow most of the same assumptions as the Project development scenarios. This alternative would provide for the development of affordable rental housing on the Dedicated Lands (Affordable Housing sites) in Planning Areas 3, 4, 5, and 8 and would be developed at a density of no less than 25 dwelling units per net acre. As with the proposed Project, Addendum Two to the AHIA would allow the use of the Private-Sector Alternative as an alternative method for developing Affordable Housing sites that permits builder financing and provides necessary Project infrastructure at no cost to the County. However, this alternative would deviate from the Project by requiring a modification to the Addendum Two to the AHIA to require 100 percent of the Affordable Housing units to be restricted to age-qualified households (restricted to age 55 years and older). The analysis identified that more than 80 percent of the operational GHG emissions would come from mobile sources. The average daily trip generation for age-qualified apartments as 3.44 trips compared to 6.65 trips per day for family (all age) apartments (Stantec 2016). Therefore, this alternative would reduce the GHG impacts, though not to a level of less than significant. This alternative would meet most of the Project Objectives; however, this alternative would not be able to meet Objective 4, which is to provide affordable housing opportunities that meet the demand of a substantial portion of the lower income population of Orange County. This alternative would only serve the demand for affordable housing for the elderly, which constitutes only about ¼ population with of the overall need. Therefore, this alternative does not fully meet this objective. This alternative is more fully discussed in Section 5.4.1 of this EIR.

1.7.2 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of an environmentally superior alternative. Section 15126.6(e)(2) of the State CEQA Guidelines states that, if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives. As discussed in Section 5.5, Environmentally Superior Alternative, in keeping with this requirement, a comparison of the severity of the environmental impacts associated with the Project and the Age-Qualified Alternative was done, as well as a comparison of each alternative's ability to meet the Project Objectives. It should be noted each of the three development scenarios using various levels of the Private-Sector Alternative (i.e., builder financing) would be applicable to both alternatives.

The Age-Qualified Alternative would have an incremental decrease in the amount traffic generation, and therefore, the associated incremental decrease in the amount of long-term air quality emissions, and noise. There would also be a slight reduction in the demand for utilities and public services because the overall population served by the project would be less. The reduced population being served is due to smaller number of people per household in age-qualified housing. However, it should be noted, the Project would not result in significant impacts for these topical areas. The key distinguishing factor between the Project and the Age-qualified Alternative is the Age-Qualified Alternative would reduce the amount of GHG emissions associated with the implementation of the Affordable Housing for the Ranch Plan when compared to the Project. However, the impacts using the project-level threshold would remain significant and unavoidable. Similarly, both the Project and the Age-Qualified Alternative would contribute to a significant cumulative construction air emissions. Therefore, the Age-Qualified Alternative would have less environmental impacts than the Project.

When considering the Project Objectives, the Age-Qualified Alternative was not able to meet the objectives, specifically Objective 4, as effectively as the Project. Though the proposed Project would have a significant GHG impact, which can be lessened, though not to a level of less than significant, with the Age-Qualified Alternative, the Project provides affordable housing that aligns with the needs of the lower income population of Orange County. Therefore, the County is recommending the Project because it most effectively meets the Project objectives.

1.8 ALTERNATIVE CALIFORNIA ENVIRONMENTAL QUALITY ACT BASELINE

Section 15125 of the State CEQA Guidelines states that "an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published . . . This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant". However, case law has found that a lead agency can justify departing from that norm when necessary to prevent misinforming or misleading the public and decision makers.

Given the circumstances under which the Project will be implemented, the County of Orange has established an alternative baseline that assumes the implementation of the Ranch Plan as part of the baseline conditions. Because the Project site is located within an approved planned community project that is undergoing, and will continue to undergo, significant development, an evaluation of impacts using an existing conditions baseline would not accurately reflect the true

impacts of the Project. This alternative baseline is justified because the AHIA requires RMV to provide the County of Orange with graded sites; to provide access; and to extend utilities to the parcels. The impacts associated with site preparation are addressed through Final EIR (FEIR) 589 for the Ranch Plan, and would have CEQA and regulatory permit compliance prior to issuance of a grading permit. The alternative Project baseline is discussed further in Section 3.4.4 of this Program EIR.

1.9 ENVIRONMENTAL IMPACT REPORT FOCUS AND EFFECTS FOUND NOT TO BE SIGNIFICANT

In accordance with Section 15063 of the State CEQA Guidelines, the County of Orange prepared an Initial Study/Environmental Checklist for the proposed Project and distributed it along with the Notice of Preparation (NOP) to responsible and interested agencies. A scoping meeting was held on June 2, 2015, from 5:30 PM to 7:30 PM in the Santa Margarita Water District Board Room. County of Orange staff were available to answer any questions about the proposed Project. A handout, which provided an overview of the proposed Project and scenarios being evaluated in the EIR and the anticipated Project schedule, also was distributed. Comment cards were available for attendees to submit at the meeting or mail to County staff.

Based on the NOP and its related Initial Study/Environmental Checklist, as well as the comments received by the County on those documents, the Project may have potential significant environmental impacts for the following topical areas; therefore, they need to be addressed in the Program EIR:

- Air Quality
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Public Services
- Transportation/Traffic

Additionally, while the Initial Study concludes that significant Project impacts are not anticipated, the County intends to provide more detailed information on the following topics in the Program EIR:

- Hydrology and Water Quality
- Population and Housing (growth-inducing impacts)
- Recreation
- Utilities and Service Services

Based on the Initial Study, the Project would not result in any potentially significant effects with respect to the topical issues listed below. The issues have been scoped out of the Program EIR because the County will be provided graded building pads and all impacts to these resources would have been fully addressed in FEIR 589:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Mineral Resources

Section 2.3 of this Program EIR provides an overview of the EIR review process and a summary of the issues that will not receive further evaluation in the EIR. Additionally, the NOP can be found in Appendix A.

1.10 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Section 15123(b)(2) of the State CEQA Guidelines indicates that an EIR summary should identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. Section 15123(b)(3) of the State CEQA Guidelines requires the EIR to identify key issues to be resolved, including the choice among alternatives.

The amount of public-sector funding available cannot be fully known at this time because the Affordable Housing would be constructed over a multiple-year period as the Dedicated Land sites become available. Grading for Planning Area 3 (the first of the Planning Areas with Affordable Housing units provided by the proposed Project) is not expected to start until late 2017 or 2018. Therefore, the soonest the Affordable Housing sites would become available is estimated to be 2019 with the development of Planning Areas 5 and 8 potentially being 12 years in the future. Since public-sector funding sources are generally allocated on an annual basis, it is uncertain what funding sources would be available in future years.

Addendum Two to the AHIA is designed to provide the County greater flexibility to respond to future conditions because it would allow the use of private-sector financing should public resources be limited. The extent that private-sector financing would be used cannot be known; therefore, at this time the total number of Affordable Units that would be provided in Planning Areas 3, 4, 5, and 8 of the Ranch Plan is unknown. This EIR addresses a range of development scenarios to ensure this EIR addresses the impacts associated with full range of possible housing scenarios that may be implemented. Scenario 3 would maximize the number of Affordable Housing units that could be built within the Ranch Plan and this method of development also requires the most commitment of County resources, the future availability of which is not certain.[5] In contrast, development under Scenario 1 would not require a similar commitment of County resources, but, based on the calculation of Dedicated Lands credit under the Private-Sector Alternative, would yield a fewest number of Affordable Housing units. Scenario 2 addresses a mid-point between these two scenarios. Therefore, even though the total number of Affordable Housing units is not known, the impacts associated with the development of the Affordable Housing units have been addressed.

The County of Orange General Plan's Housing Element identifies the opportunity to maximize the number of affordable housing units in the Ranch Plan, which would require use of public-sector resources. However, it should be noted that any of the scenarios would provide for the number of lower income housing units allocated in the Housing Element for the Ranch Plan as part of the County's plan to meet the current (through 2021) RHNA allocation. Scenarios 1 and 2 would not develop the maximum number of units; therefore, these scenarios would not

[5] As discussed in Section 2.6.2, the AHIA sets forth the process, requirements and timeframes for RMV to satisfy its obligations to provide affordable housing sites under the Development Agreement, as well as for the County to initiate the builder selection and financing process. If the County is unable complete their responsibilities within the established timeframe, RMV's obligation with respect to the housing site would be deemed satisfied, and that its obligation to provide 60 gross acres would be reduced by the amount of acreage of the housing site. Therefore, if the builder cannot be selected and financing secured, the County would lose the opportunity to build the affordable housing units on the site.

maximize the opportunity to utilize the Ranch for meeting the County's overall RHNA allocation for affordable housing in the current period or contribute as many units for future RHNA allocations.[6] However, in order for the development levels evaluated as part of Scenario 3 to be realized, the County would need to have sufficient public resources available to support the construction of Affordable Housing on all the Dedicated Lands.

The number of acres being provided within the Ranch Plan provides an opportunity for a substantial number of affordable housing units. However, it also provides a unique opportunity for private-sector financing of improvements, which would allow the limited funding that is available to provide for development of affordable housing units elsewhere in the County where developer funding is not an option. This EIR evaluates a range of Project implementation scenarios, assuming the involvement of different levels of public- and private-sector involvement.

1.11 SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION PROGRAM

Table 1-1 presents a summary of the potential environmental effects of the proposed Project for each of the scenarios; measures to mitigate impacts to the extent feasible; and expected status of effects following implementation of the mitigation measures. The more detailed evaluation of these issues is presented in Section 4. If the text of the mitigation measure is too lengthy to include in tabular format, it is briefly summarized in the table and the mitigation measure number is noted. All mitigation measures are listed in their entirety in the appropriate portion of Section 4.

In Table 1-1, the significance of each impact is indicated by the following abbreviations that parenthetically follow the summary description of the impact: S=significant impact; LS=impact is less than significant according to the State CEQA Guidelines; and NI=no impact. The level of significance provided for each of the scenarios in the Impact columns denotes the level of significance prior to mitigation. There is also an indicator in the column identified as Level of Significance After Mitigation, which makes a determination if the mitigation measures would reduce the impact to a level considered less than significant.

[6] The current RHNA planning period is October 2013 to October 2021. The RHNA allocation for unincorporated Orange County is 2,392 affordable housing units. The Housing Element of the General Plan outlines an approach for meeting this allocation. Based on assumed development phasing of the Ranch Plan, a total of 360 affordable units were assumed to be built on the Ranch. The remaining affordable units were to be built in the Housing Opportunity Overlay Zone. This is further discussed in Section 4.4, Land Use and Planning.

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TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
AIR QUALITY (Section 4.1)						
4.1-1: Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Scenario 1 would not conflict or obstruction of the implementation of the SCAQMD 2016 Air Quality Management Plan (AQMP), which will be the applicable air quality plan at the time construction of Affordable Housing units is initiated. (NI)	Scenario 2 would not conflict or obstruction of the implementation of the SCAQMD 2016 AQMP, which will be the applicable air quality plan at the time construction of Affordable Housing units is initiated. (NI)	Scenario 3 would not conflict or obstruction of the implementation of the SCAQMD 2016 AQMP, which will be the applicable air quality plan at the time construction of Affordable Housing units is initiated. (NI)	The No Project Alternative would not conflict or obstruction of the implementation of the SCAQMD 2016 AQMP. (NI)	No mitigation measures are required.	**All Scenarios and the No Project Alternative:** No Impact
4.1-2: Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Construction mass emissions and local construction emissions for Scenario 1 would be less than less than the SCAQMD CEQA significance thresholds. Mass operational emissions would not exceed the SCAQMD CEQA significance thresholds and would be less than significant. Local CO emissions would not have the potential to exceed applicable standards and would be less than significant. (LS)	Construction mass emissions and local construction emissions for Scenario 2 would be less than less than the SCAQMD CEQA significance thresholds. Mass operational emissions would not exceed the SCAQMD CEQA significance thresholds and would be less than significant. Local CO emissions would not have the potential to exceed applicable standards and would be less than significant. (LS)	Construction mass emissions and local construction emissions for Scenario 3 would be less than less than the SCAQMD CEQA significance thresholds. Mass operational emissions would not exceed the SCAQMD CEQA significance thresholds and would be less than significant. Local CO emissions would not have the potential to exceed applicable standards and would be less than significant. (LS)	The No Project Alternative would have no new mass emissions associated with operations or new local construction emissions. Local CO emissions would not have the potential to exceed applicable standards. (NI)	No mitigation measures are required; however, the following standard conditions would apply to Scenarios 1 through 3: • During construction of the Project, the County or its designee shall comply with South Coast Air Quality Management District (SCAQMD) Rules 402 and 403, in order to minimize short term emissions of dust and particulates. (See Section 4.1-7 for the full text of **SC AQ-1**.) • Architectural coatings shall be selected so that the volatile organic compound (VOC) content of the coatings is compliant with SCAQMD Rule 1113. (See Section 4.1-7 for the full text of **SC AQ-2**.)	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
4.1-3: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State Ambient Air Quality Standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Scenario 1 Project-level mass operational and construction emissions of nonattainment pollutants and their precursors would not exceed SCAQMD thresholds. However, because the Project would be implemented in conjunction with the development of Ranch Plan, which did identify significant construction emissions with an emphasis on NOx, cumulatively mass construction impacts are potentially a significant impact. (S)	Scenario 2 Project-level mass operational and construction emissions of nonattainment pollutants and their precursors would not exceed SCAQMD thresholds. However, because the Project would be implemented in conjunction with the development of Ranch Plan, which did identify significant construction emissions with an emphasis on NOx, cumulatively mass construction impacts are potentially a significant impact. (S)	Scenario 3 Project-level mass operational and construction emissions of nonattainment pollutants and their precursors would not exceed SCAQMD thresholds. However, because the Project would be implemented in conjunction with the development of Ranch Plan, which did identify significant construction emissions with an emphasis on NOx, cumulatively mass construction impacts are potentially a significant impact. (S)	The No Project Alternative would have no new mass emissions associated with operations or new construction emissions. The construction emissions associated with the Ranch Plan would remain; however, the No Project Alternative would not contribute to the emissions. (NI)	The following measures would apply to Scenarios 1 through 3: • Prior to issuance of each grading and building permit, the Applicant shall provide plans and specifications demonstrating that construction documents require the construction contractors to implement the listed measures or provide information and data that demonstrates that implementation would not be feasible (See Section 4.1-7 for the full text of **MM AQ-1**.) • Prior to the issuance of each grading and building permit, the Applicant shall provide plans and specifications demonstrating that construction documents require all off-road diesel-powered construction equipment greater than 50 horsepower (hp) meet Tier 3 off-road emissions standards as a minimum and shall meet Tier 4 emissions standards, where reasonably available. (See Section 4.1-7 for the full text of **MM AQ-2**.)	**Cumulative Impact Operational Emissions** **Scenarios 1–3:** Less than significant impact **No Project:** No impact **Cumulative Impact Construction Emissions** **Scenarios 1–3:** Significant, unavoidable impact **No Project:** No impact

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
4.1-4: Would the project expose sensitive receptors to substantial pollutant concentrations?	Exposure of sensitive receptors to criteria pollutants from on-site construction, to carbon monoxide (CO) at congested intersections, or to off-site and future on-site receptors from Toxic Air Contaminants (TACs) would be less than significant with Scenario 1. (LS)	Exposure of sensitive receptors to criteria pollutants from on-site construction, to CO at congested intersections, or to off-site and future on-site receptors from TACs would be less than significant with Scenario 2. (LS)	Exposure of sensitive receptors to criteria pollutants from on-site construction, to CO at congested intersections, or to off-site and future on-site receptors from TACs would be less than significant with Scenario 3. (LS)	The No-Project Alternative would not exposure of sensitive receptors to criteria pollutants from on-site construction, to CO at congested intersections, or to off-site and there would be no exposure to TACs because there would be no construction activities. (NI)	No mitigation measures are required.	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
GREENHOUSE GAS EMISSIONS (Section 4.2)						
4.2-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	GHG emissions associated with Scenario 1 would be less than the SCAQMD-recommended plan-level threshold; however, when the cumulative of the Affordable Housing sites are evaluated, it would exceed the project-level threshold. (S)	GHG emissions associated with Scenario 2 would be less than the SCAQMD-recommended plan-level threshold; however, when the cumulative of the Affordable Housing sites are evaluated, it would exceed the project-level threshold. (S)	GHG emissions associated with Scenario 3 would be less than the SCAQMD-recommended plan-level threshold; however, when the cumulative of the Affordable Housing sites are evaluated, it would exceed the project-level threshold. (S)	The No Project Alternative would not generate any GHG emissions because there would be no development. (NI)	The following measures would apply to Scenarios 1 through 3: • Projects shall be designed in accordance with the applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6). These standards are updated, nominally every three years, to incorporate improved energy efficiency technologies and methods. (**SC GHG-1**) • Projects shall be designed in accordance with the applicable California Green Building Standards (CALGreen) Code (24 CCR 11). (**SC GHG-2**) • Prior to the issuance of each building permit that would include a swimming pool, the applicant shall obtain the approval of the Manager, Permit Services of plans and specifications demonstrating that swimming pools would be heated by solar energy sources. (**MM GHG-1**) • Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate, that Low-energy Energy Star®-compliant or equivalent residential appliances shall be exclusively provided for each appliance that is rated by Energy Star (e.g., refrigerator, clothes washer, dishwasher), or achieves an efficiency that is equivalent to the 2016 Energy Star compliance standard. (**MM GHG-2**) • Prior to the issuance of each building permit, the applicant shall demonstrate to the satisfaction of the Manager, Permit Services that high efficiency lighting (light-emitting diode [LED]) shall be used for all outdoor lighting applications (**MM GHG-3**) • Prior to the issuance of each building permit, the applicant shall obtain the approval of the Manager, Permit Services of plans and specifications demonstrating preferential that parking for low-emitting, fuel-efficient, and carpool/van vehicles shall be provided. (**MM GHG-4**)	**Scenarios 1–3:** Significant, unavoidable impact **No Project:** No impact

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
					• Prior to the issuance of each building permit, the applicant shall obtain the approval of the Manager, Permit Services of plans and specifications demonstrating that buildings are provided with electrical hardware to facilitate and encourage the use of electrical landscape equipment. (**MM GHG-5**)	
4.2-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Scenario 1 would be consistent with and would not conflict with State and Regional regulations and policies adopted for the purpose of reducing GHG emissions. (NI)	Scenario 2 would be consistent with and would not conflict with State and Regional regulations and policies adopted for the purpose of reducing GHG emissions. (NI)	Scenario 3 would be consistent with and would not conflict with State and Regional regulations and policies adopted for the purpose of reducing GHG emissions. (NI)	The No Project Alternative would be consistent with and would not conflict with State and Regional regulations and policies adopted for the purpose of reducing GHG emissions. (NI)	No mitigation measures are required.	**All Scenarios:** No Impact
HYDROLOGY AND WATER QUALITY (Section 4.3)						
4.3-1: Would the Project violate any water quality standards or waste discharge requirements? **4.3-2:** Would the Project otherwise substantially degrade water quality?	Scenario 1 would not result in a violation of any water quality standards or waste discharge requirements because site design, source control and treatment systems, which would be constructed as part of the Ranch Plan, would provide an effective treatment for most pollutants associated with urbanization. (LS)	Scenario 2 would not result in a violation of any water quality standards or waste discharge requirements because site design, source control and treatment systems, which would be constructed as part of the Ranch Plan, would provide an effective treatment for most pollutants associated with urbanization. (LS)	Scenario 3 would not result in a violation of any water quality standards or waste discharge requirements because site design, source control and treatment systems, which would be constructed as part of the Ranch Plan, would provide an effective treatment for most pollutants associated with urbanization. (LS)	The No Project Alternative would not result in a violation of any water quality standards or Project-related waste discharge requirements. (NI)	No mitigation measures are required; however, the following standard conditions would apply to Scenarios 1 through 3: • Prior to issuance of grading or building permits, drainage studies shall be demonstrate all surface runoff and subsurface drainage shall be directed to the nearest acceptable drainage facility. (See Section 4.3-7 for the full text of **SC HWQ-1**.) • Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the County's National Pollutant Discharge Elimination System (NPDES) Implementation Program. (See Section 4.3-7 for the full text of **SC HWQ-2**.) • Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance with California's General Permit for Stormwater Discharges Associated with Construction Activity and prepare and implement a Storm Water Pollution Prevention Plan. (See Section 4.3-7 for the full text of **SC HWQ-3**.) • Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan. (See Section 4.3-7 for the full text of **SC HWQ-4**.)	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
4.3-3: Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Scenario 1 would not create or contribute increase runoff flows that would exceed the capacity of the planned storm water drainage systems because development of the Affordable Housing sites have been assumed as part of the sizing and design of the larger backbone infrastructure that will be provided for each of the Planning Areas. (LS)	Scenario 2 would not substantially increase runoff flows that would exceed the capacity of the planned storm water drainage systems because development of the Affordable Housing sites have been assumed as part of the sizing and design of the larger backbone infrastructure that will be provided for each of the Planning Areas. (LS)	Scenario 3 would not substantially increase runoff flows that would exceed the capacity of the planned storm water drainage systems because development of the Affordable Housing sites have been assumed as part of the sizing and design of the larger backbone infrastructure that will be provided for each of the Planning Areas. (LS)	The No Project Alternative would not provide any Project-related development; therefore, there would be no Project-related impacts. Development of the Affordable Housing sites would incorporate Ranch Plan approved uses, which have been appropriately designed and sized as part of the Master Area Plan for each of the Planning Areas. (NI)	No mitigation measures are required.	**Scenarios 1–3:** Less than significant impact **No Project:** No impact

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
LAND USE AND PLANNING (Section 4.4)						
4.4-1: Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Scenario 1 would be consistent with the applicable land use plan. Scenario 1 would also be consistent with the applicable policies regional and local policies and regulations, including the 2013-2021 Regional Housing Needs Assessment (RHNA) component of the Housing Element. (NI)	Scenario 2 would be consistent with the applicable land use plan. Scenario 2 would also be consistent with the applicable policies regional and local policies and regulations, including the 2013-2021 RHNA component of the Housing Element. (NI)	Scenario 3 would be consistent with the applicable land use plan. Scenario 3 would also be consistent with the applicable policies regional and local policies and regulations, including the 2013-2021 RHNA component of the Housing Element. (NI)	The No Project Alternative would be consistent with the applicable land use plan. (NI) The No Project Alternative would directly not contribute additional affordable housing units; however, it is not required that each Project provide affordable housing for the County to be consistent with the applicable regional and local policies and regulations pertaining to policy consistency. The County's Housing Opportunities Overlay Zone identifies the opportunity for 2,032 lower income housing units. (LS) As identified above, there are sufficient opportunities for affordable housing in unincorporated Orange County that the RHNA allocation can be achieved. Therefore, from the policy perspective there would be no impact associated with inconsistencies with the RHNA policies. (NI)	No mitigation measures are required.	**Scenarios 1–3:** No impact **No Project:** No impact for consistency with land use plan and RHNA consistency. Less than significant impact for policy consistency.
NOISE (Section 4.5)						
4.5-1 Would the Project expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	For Scenario 1 noise impacts associated with construction activities, on-site stationary (heating, ventilation, and air conditioning (HVAC) equipment and other mechanical equipment, and traffic noise would be less than significant with implementation of Standard Conditions of Approval. (LS)	For Scenario 2 noise impacts associated with construction activities, on-site stationary HVAC equipment and other mechanical equipment, and traffic noise would be less than significant with implementation of Standard Conditions of Approval. (LS)	For Scenario 3 noise impacts associated with construction activities, on-site stationary HVAC equipment and other mechanical equipment, and traffic noise would be less than significant with implementation of Standard Conditions of Approval. (LS)	With the No Project Alternative there would be no noise impact because there would be no construction activities or increased development. (NI)	No mitigation measures are required; however, the following standard conditions would apply to Scenarios 1 through 3: • During construction, the Project Applicant shall ensure that all noise-generating activities be limited to the hours of 7 AM to 8 PM on weekdays and Saturdays. No noise-generating activities shall occur on Sundays and federal holidays in accordance with the County of Orange Noise Ordinance. (**SC NOI-1)** • As a condition of issuance of any grading permits, the Project Applicant shall comply with the Noise Ordinance, equip equipment with appropriate mufflers, and stockpile materials and staging as far as practicable from dwelling units. (See Section 4.5-7 for the full text of **SC NOI-2)** • The Project Applicant shall sound-attenuate all residential lots and dwellings against present and projected noise (which shall be the sum of all noise impacting the project) so that the composite interior standard of 45 dBA CNEL for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas is not	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
4.5-2: Would the Project expose persons to or generate excessive groundborne vibration or groundborne noise levels?	With Scenario 1, structural damage or annoyance vibration impacts from potential construction activities would be less than significant and potential exposure of future occupants to vibration from highway operations would be less than significant. (LS)	With Scenario 2, structural damage or annoyance vibration impacts from potential construction activities would be less than significant and potential exposure of future occupants to vibration from highway operations would be less than significant. (LS)	With Scenario 3, structural damage or annoyance vibration impacts from potential construction activities would be less than significant and potential exposure of future occupants to vibration from highway operations would be less than significant. (LS)	The No Project Alternative would not have an impact associated with vibration because there would be no construction activities or new Project-related uses on the Affordable Housing sites. (NS)		**Scenarios 1–3:** Less than significant impact **No Project:** No impact
4.5-3: Would the Project cause substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Scenario 1 would not cause a substantial permanent increase in ambient noise levels in the Project vicinity when compared to levels existing without the Project. (LS)	Scenario 2 would not cause a substantial permanent increase in ambient noise levels in the Project vicinity when compared to levels existing without the Project. (LS)	Scenario 3 would not cause a substantial permanent increase in ambient noise levels in the Project vicinity when compared to levels existing without the Project. (LS)	The No Project Alternative would not result in any new development, Therefore, there would be substantial permanent increase in ambient noise levels in the Project vicinity. (NI)		**Scenarios 1–3:** Less than significant impact **No Project:** No impact

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
4.5-4: Would the Project cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	With Scenario 1, there would be a temporary increase in ambient noise levels in the Project vicinity due to Project construction. (LS)	With Scenario 2, there would be a temporary increase in ambient noise levels in the Project vicinity due to Project construction. (LS)	With Scenario 3, there would be a temporary increase in ambient noise levels in the Project vicinity due to Project construction. (LS)	The No Project Alternative would not result in any new development, Therefore, there would be substantial temporary or periodic increase in ambient noise levels in the Project vicinity. (NI)	exceeded. (See Section 4.5-7 for the full text of **SC NOI-3)** • Prior to the issuance of any certificates of use and occupancy, the applicant shall perform field testing in accordance with Title 24 Regulations to verify compliance with FSTC and FIIC standards. (See Section 4.5-7 for the full text of **SC NOI-4)** • Prior to the issuance of any building or grading permits, the applicant shall obtain the approval of the Manager, Building and Safety, of an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by the Project during its operation shall be controlled in compliance with Orange County Codified Ordinance, Division 6 (Noise Control). (See Section 4.5-7 for the full text of **SC NOI-5)**	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
POPULATION AND HOUSING (Section 4.6)						
4.6-1: Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Though Scenario 1 would provide additional housing units within the Ranch Plan, it would not induce substantial population growth in an area, either directly or indirectly and would be consistent with the development levels assumed in the adopted Orange County Projections 2014 (OCP-2014). Impacts would be less than significant. (LS)	Though Scenario 2 would provide additional housing units within the Ranch Plan, it would not induce substantial population growth in an area, either directly or indirectly and would be consistent with the development levels assumed in the adopted OCP-2014. Impacts would be less than significant. (LS)	Though Scenario 3 would provide additional housing units within the Ranch Plan, it would not induce substantial population growth in an area, either directly or indirectly and would be consistent with the development levels assumed in the adopted OCP-2014. Impacts would be less than significant. (LS)	The No Project Alternative would not induce any population growth in an area, either directly or indirectly. There would be no impacts to population or housing. (NI)	No mitigation is required.	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
PUBLIC SERVICES (Section 4.7)						
4.7-1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: (i) Fire protection.	The future fire station facilities associated with the Ranch Plan would be adequate to serve the Scenario 1 and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities as it pertains to fire services, (NI)	The future fire station facilities associated with the Ranch Plan would be adequate to serve the Scenario 2 and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities as it pertains to fire services, (NI)	The future fire station facilities associated with the Ranch Plan would be adequate to serve the Scenario 3 and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities as it pertains to fire services, (NI)	The No Project Alternative would not require the construction of new fire protection facilities, which could cause significant environmental impacts, No impact would occur under the No Project Alternative as it pertains to fire services. (NI)	No mitigation measures are required; however, the following standard conditions would apply to Scenarios 1 through 3: • If determined necessary by the Fire Code Official the Applicant shall enter into an agreement with the County for the installation of traffic signal preemption equipment for any signalized intersections providing direct access to the site. (See Section 4.7.7 for the full text of **SC FIR-1)** • Prior to issuance of a building permit, the applicant shall provide a residential site plan for review and approval by the Fire Code Official. (See Section 4.7.7 for the full text of **SC FIR-2)**	**All Scenarios**: No impact
4.7-2: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other	Existing Orange County Sheriff's Department (OCSD) Sheriff Substation facilities serving the Southeast and Southwest areas of Orange County would be adequate to serve Scenario 1 and no additional facilities would be required. Therefore, no physical impacts associated with the	Existing OCSD Sheriff Substation facilities serving the Southeast and Southwest areas of Orange County would be adequate to serve Scenario 2 and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities would be required as it	Existing OCSD Sheriff Substation facilities serving the Southeast and Southwest areas of Orange County would be adequate to serve Scenario 3 and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities would be required as it	The No Project Alternative would not require the construction of new police facilities that could cause physical impacts associated with the provision of new or altered government facilities as it pertains to police protection services. (NI)	No mitigation is required.	**All Scenarios**: No impact

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
performance objectives for any of the public services: (ii) Police protection.	provision of new or altered government facilities would be required as it pertains to police protection services. (NI)	pertains to police protection services. (NI)	pertains to police protection services. (NI)			
4.7-3: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: (iii) Schools?	The number of students that would be generated by the Scenario 1 would not require the construction of new school facilities beyond those already planned as part of the Ranch Plan. No substantial new physical impacts are anticipated. (LS)	The number of students that would be generated by the Scenario 2 would not require the construction of new school facilities beyond those already planned as part of the Ranch Plan. No substantial new physical impacts are anticipated. (LS)	The number of students that would be generated by the Scenario 3 would not require the construction of new school facilities beyond those already planned as part of the Ranch Plan. No substantial new physical impacts are anticipated. (LS)	The No Project Alternative does not require the construction of new school facilities; therefore, there would be no impacts. (NI)	No mitigation measures are required; however, the following standard condition would apply to Scenarios 1 through 3: • Prior to issuance of the first occupancy permit, the Project Applicant shall be responsible for payment of all applicable school impact developer fees pursuant to Senate Bill (SB) 50. (**SC SCH-1**)	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
4.7-4: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: (iv) Parks?	Parkland would be part of the baseline infrastructure provided by RMV. The amount of parkland that will be included in the Ranch Plan would provide Scenario 1 residents with acceptable levels of service and would not require the construction of new facilities as I pertains to parkland. (NI)	Parkland would be part of the baseline infrastructure provided by RMV. The amount of parkland that will be included in the Ranch Plan would provide Scenario 2 residents with acceptable levels of service and would not require the construction of new facilities as I pertains to parkland. (NI)	Parkland would be part of the baseline infrastructure provided by RMV. The amount of parkland that will be included in the Ranch Plan would provide Scenario 3 residents with acceptable levels of service and would not require the construction of new facilities as I pertains to parkland. (NI)	The No Project Alternative would not result in any additional residents; therefore, it does not require additional park facilities. (NI)	No mitigation is required.	**All Scenarios**: No impact
4.7-5: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: (v) Other Public Facilities?	Though Scenario 1 would increase the population in the area resulting in an incremental increased demand for library services, the Project would not create a need for construction of new library facilities beyond what is planned for the Ranch Plan. (NI)	Though Scenario 2 would increase the population in the area resulting in an incremental increased demand for library services, the Project would not create a need for construction of new library facilities beyond what is planned for the Ranch Plan. (NI)	Though Scenario 3 would increase the population in the area resulting in an incremental increased demand for library services, the Project would not create a need for construction of new library facilities beyond what is planned for the Ranch Plan. (NI)	The No Project Alternative does not require additional library facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios and other performance objectives. (NI)	No mitigation is required.	**All Scenarios**: No impact
RECREATION (Section 4.8)						
4.8-1: Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Scenario 1 would result in additional population using the parkland facilities but based on the amount of acreage to be provided as part of the Ranch Plan, the increased population would result not in a substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities. (LS)	Scenario 2 would result in additional population using the parkland facilities but based on the amount of acreage to be provided as part of the Ranch Plan, the increased population would result not in a substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities. (LS)	Scenario 3 would result in additional population using the parkland facilities but based on the amount of acreage to be provided as part of the Ranch Plan, the increased population would result not in a substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities. (LS)	The No Project Alternative would not generate any additional population; therefore, it would not result in a substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities. (NI)	No mitigation is required	**Scenarios 1–3:** Less than significant impact **No Project:** No impact

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
4.8-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Scenario 1 would not include the construction of public recreational facilities or expanded recreational facilities. Therefore, there would be no impact on the environment associated with the provision recreational facilities. (NI)	Scenario 2 would not include the construction of public recreational facilities or expanded recreational facilities. Therefore, there would be no impact on the environment associated with the provision recreational facilities. (NI)	Scenario 3 would not include the construction of public recreational facilities or expanded recreational facilities. Therefore, there would be no impact on the environment associated with the provision recreational facilities. (NI)	The No Project Alternative would not include the construction of public recreational facilities or expanded recreational facilities. Therefore, there would be no impact on the environment associated with the provision recreational facilities. (NI)	No mitigation is required	**All Scenarios**: No impact
TRANSPORTATION/TRAFFIC (Section 4.9)						
4.9-1: Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Scenario 1 would contribute traffic to the existing and future circulation system; however, it would not cause any intersections, freeway/toll road ramps, or freeway/toll road mainline segments to operate at unacceptable levels of service. Scenario 1 would not result in any direct impact or conflict on pedestrian and bicycle paths or mass transit services. (LS)	Scenario 2 would contribute traffic to the existing and future circulation system; however, it would not cause any intersections, freeway/toll road ramps, or freeway/toll road mainline segments to operate at unacceptable levels of service. Scenario 2 would not result in any direct impact or conflict on pedestrian and bicycle paths or mass transit services. (LS)	Scenario 3 would contribute traffic to the existing and future circulation system; however, it would not cause any intersections, freeway/toll road ramps, or freeway/toll road mainline segments to operate at unacceptable levels of service. Scenario 3 would not result in any direct impact or conflict on pedestrian and bicycle paths or mass transit services. (LS)	The No Project Alternative would not cause any intersections, freeway/toll road ramps, or freeway/toll road ramps to operate at unacceptable levels of service. The No Project Alternative would not result in any direct impact on pedestrian and bicycle paths or mass transit services. (NI)	No mitigation is required however, the following standard condition would apply to Scenarios 1 through 3: • Prior to the issuance of building permits, the Applicant shall pay applicable fees for the Foothill/Eastern Transportation Corridor and SCRIP Fee Programs. (See Section 4.9.7 for the full text of **SC TRANS-1.**)	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
4.9-2: Would the Project conflict with an applicable congestion management program (CMP), including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Scenario 1 would not conflict with the CMP because it would not change the LOS or V/C ratios at any of the CMP intersections or create substantial increased demand on a CMP roadway. (LS)	Scenario 2 would not conflict with the CMP because it would not change the LOS or V/C ratios at any of the CMP intersections or create substantial increased demand on a CMP roadway. (LS)	Scenario 3 would not conflict with the CMP because it would not change the LOS or V/C ratios at any of the CMP intersections or create substantial increased demand on a CMP roadway. (LS)	The No Project Alternative would not conflict with the CMP because it would not add trips to CMP intersections or create substantial increased demand on a CMP roadway. (NI)	No mitigation is required	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
UTILITIES AND SERVICE SYSTEMS (Section 4.10)						
4.10-1: Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Wastewater discharge associated with Scenario 1 would be directed to the Santa Margarita Water District's (SMWD) Chiquita Water Reclamation Plant (CWRP), which has been designed and constructed to comply with all applicable wastewater discharge requirements, as enforced by the San Diego Regional Water Quality Control Board (RWQCB). (LS)	Wastewater discharge associated with Scenario 2 would be directed to the SMWD CWRP, which has been designed and constructed to comply with all applicable wastewater discharge requirements, as enforced by the San Diego RWQCB. (LS)	Wastewater discharge associated with Scenario 3 would be directed to the SMWD CWRP, which has been designed and constructed to comply with all applicable wastewater discharge requirements, as enforced by the San Diego RWQCB. (LS)	With the No Project Alternative, there would be no additional wastewater created; therefore, this alternative would not exceed RWQCB wastewater treatment requirements. (NI)	No mitigation is required	**Scenarios 1–3:** Less than significant impact **No Project:** No impact
4.10-2: Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts? **4.10-4:** Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate	With the ultimate improvements to the CWRP and the infrastructure improvements provided by RMV as part of the Ranch Plan, there would be sufficient capacity to meet system-wide demand required to serve Scenario 1. Construction of the new water or wastewater facilities would occur prior to implementation of Scenario 1	With the ultimate improvements to the CWRP and the infrastructure improvements provided by RMV as part of the Ranch Plan, there would be sufficient capacity to meet system-wide demand required to serve Scenario 2. Construction of the new water or wastewater facilities would occur prior to implementation of Scenario 2 Therefore, would be less than significant. (LS)	With the ultimate improvements to the CWRP and the infrastructure improvements provided by RMV as part of the Ranch Plan, there would be sufficient capacity to meet system-wide demand required to serve Scenario 3. Construction of the new water or wastewater facilities would occur prior to implementation of Scenario 3 Therefore, would be less than significant. (LS)	With the No Project Alternative, would not result in any additional demands on water or wastewater facilities. The planned improvements for the Ranch Plan would occur but there would be no need to accommodate additional flows associated with Affordable Housing. Therefore, there would be no impacts. (NI)	No mitigation is required	**Scenarios 1–3:** Less than significant impact **No Project:** No impact

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold	Impacts				Mitigation Measure	Level of Significance After Mitigation
	Scenario 1	Scenario 2	Scenario 3	No Project Alternative		
capacity to serve the Project's projected demand in addition to the provider's existing commitments?	Therefore, would be less than significant. (LS)					
4.10-3: Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	The SMWD's approved Water Supply Assessment (WSA) prepared for the Project shows that the SMWD has available water supplies to meet water demands for Scenario 1 for the next 20 years, including demands during normal, single-dry and multiple-dry years. (LS)	The SMWD's approved Water Supply Assessment (WSA) prepared for the Project shows that the SMWD has available water supplies to meet water demands for Scenario 2 for the next 20 years, including demands during normal, single-dry and multiple-dry years. (LS)	The SMWD's approved Water Supply Assessment (WSA) prepared for the Project shows that the SMWD has available water supplies to meet water demands for Scenario 3 for the next 20 years, including demands during normal, single-dry and multiple-dry years. (LS)	With the No Project Alternative, there would be no increased water demand because there would be no additional population. Therefore, there would be no impacts. (NI)	No mitigation is required	**Scenarios 1–3:** Less than significant impact **No Project:** No impact

1.12 REFERENCES

Orange, County of. 2016. *Draft Addendum Number Two to the Affordable Housing Implementation Agreement for Rancho Mission Viejo.* Santa Ana, CA: the County.

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2.0 INTRODUCTION, PROJECT HISTORY, AND SETTING

2.1 PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) (*California Public Resources Code* [PRC], Section 21002.1) states that the purpose of an environmental impact report (EIR) is to identify the significant effects of a project on the environment, and to indicate the manner in which those significant impacts can be mitigated or avoided. A detailed description of the Project is provided in Section 3.0, Project Description, of this Draft Program EIR. An overview of the Affordable Housing Implementation Agreement (AHIA) is provided in Section 2.6.2.

The Project requires approval of certain discretionary actions by the County of Orange (County). Therefore, in accordance with Section 21080 of the *California Public Resources Code,* the Project is subject to environmental review under CEQA. For purposes of complying with CEQA, the County of Orange is the Lead Agency for the Project.

In accordance with Section 15121(a) of the State CEQA Guidelines, this EIR is an informational document that will inform public agency decision makers and the general public of (1) the potentially significant environmental effects of the Project; (2) possible ways to minimize the significant effects; and (3) reasonable alternatives to the Project. The EIR is an important document that is ultimately used by decision makers when considering whether or not to approve, deny, or modify the proposed Project.

2.2 TYPE OF ENVIRONMENTAL IMPACT REPORT

This EIR has been prepared in accordance with CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (Title 14, *California Code of Regulations* [CCR] Section 15000 et seq.). Section 15151 of the State CEQA Guidelines defines the standards of adequacy for an EIR:

> An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

This Draft EIR is intended to serve as a Program EIR under CEQA. Section 15165 of the State CEQA Guidelines states "where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168". Because the development of Affordable Housing sites contemplated by the AHIA will be implemented over time, but all the Affordable Housing sites are provided for as components of the AHIA, a Program EIR is being prepared by the County, as the lead agency for the Project. Section 15168 of the State CEQA Guidelines goes on to describe a Program EIR as follows:

(a) General. A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:
   (1) Geographically,
   (2) As logical parts in the chain of contemplated actions,
   (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
   (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

(b) Advantages. Use of a program EIR can provide the following advantages. The program EIR can:
   (1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,
   (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
   (3) Avoid duplicative reconsideration of basic policy considerations,
   (4) Allow the Lead Agency to consider broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
   (5) Allow reduction in paperwork.

(c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.
   (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
   (2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.
   (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.
   (4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.
   (5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

2.3 ENVIRONMENTAL IMPACT REPORT CONTENT AND REVIEW PROCESS

2.3.1 ISSUES TO BE ADDRESSED IN THE ENVIRONMENTAL IMPACT REPORT

In accordance with Section 15063(a) of the State CEQA Guidelines, the County prepared an Initial Study for the Project and determined that the Project may have a significant effect on the environment; as such, an EIR is required for the Project.

In compliance with Section 15082 of the State CEQA Guidelines, the County oversaw preparation of the Notice of Preparation (NOP) of the Draft EIR for the Project, which was distributed on May 20, 2015, to the State Clearinghouse and other public agencies for the required 30-day review and comment period. Additionally, a Scoping Meeting was held at the Santa Margarita Water District (SMWD) Board Room, located at 26111 Antonio Parkway in Rancho Santa Margarita, California on June 2, 2015. The purpose of the scoping meeting was to facilitate agency and public review and comment on the Project. County of Orange staff were available to answer any questions about the Project. The NOP, comments that the County received on the NOP, and the handout made available at the scoping meeting are included in Appendix A of this Draft Program EIR.

At the scoping meeting, the SMWD stated that the number of units proposed by all of the Project development scenarios would require the preparation of a Water Supply Assessment. Additionally, two comment letters were received in the 30-day review period. These letters are summarized below:

- **Transportation Corridor Agencies (TCA)**. The TCA commented that the Project is within the Foothill/Eastern Transportation Corridor Agency fee program area and will require payment of Development Impact Fees as a condition of issuing building permits pursuant to the Major Thoroughfare and Bridge Fee Program.
- **California Department of Transportation.** The California Department of Transportation (Caltrans) requires a traffic impact study (TIS) to determine the Project's near-term and long-term impacts to State facilities, including Interstate (I) 5, State Route (SR) 74, SR-241, and SR-73. The Project analysis should address biking and pedestrians and should include possible impacts on pedestrian and bicycle paths within Caltrans right-of-way.

The scope of the EIR is based on the findings of the Initial Study and input received from the agencies and the public as part of the scoping process. The EIR addresses all issues that were determined to be potentially significant in the Initial Study. In addition, there were several topical areas where the Initial Study did not identify potential significant impacts but the County elected to include them in the EIR.

Based on the NOP and related Initial Study Environmental Checklist, as well as the comments received by the County on those documents, the Project may have potential significant

environmental impacts for the following topical areas; therefore, they need to be addressed in the Program EIR:

- Air Quality
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Public Services
- Transportation/Traffic

Additionally, while the Initial Study concludes that significant Project impacts are not anticipated, the County intends to provide more detailed information regarding specific potential environmental impacts of the Project on the following topics in the Program EIR:

- Hydrology and Water Quality
- Population and Housing (growth-inducing impacts)
- Recreation
- Utilities and Service Services

As discussed below, based on the Initial Study/NOP, several topical issues were focused out of the EIR. The Dedicated Lands are within the development area of the Ranch Plan, and the AHIA states that RMV is required, as part of its obligations under the AHIA and its Development Agreement with the County, to provide the County Affordable Housing sites that are fully graded with utilities extended to the site (see Section 2.6.2 for a discussion of the AHIA and Section 3.4.4 for a discussion of the Alternative CEQA Baseline). The environmental impacts of this site preparation have been analyzed as part of the impacts of the Ranch Plan, in EIR 589 and the addenda prepared for the Master Area Plans, Subarea Plans, and key infrastructure improvements. The Project would have no impact as it pertains to the following topical issues:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Mineral Resources

The following issues were assessed as having "No Impact" or "Less Than Significant Impact" in the Initial Study/NOP (County of Orange 2015b); therefore, in accordance with Section 15128 of the State CEQA Guidelines, these issues have not received further evaluation in the EIR (see Appendix A, Initial Study/NOP for a more detailed evaluation of the issues):

- **Aesthetics (all thresholds):** There are no designated scenic vistas within the Ranch Plan limits. The Project would be constructed on graded areas within the Ranch Plan development areas and would be required to comply with the applicable design requirements provided for in the *Ranch Plan Planned Community Program Text.* As such, the overall visual character of the Affordable Housing sites and views from surrounding areas would not be substantially different with implementation of the Project.

  Three roadways within the Ranch Plan are designated as Landscape Corridors in the County of Orange Transportation Element's Scenic Highway Plan: Ortega Highway, Antonio Parkway and Cow Camp Road. Improvements to each of the foregoing highways have been or, in the case of Cow Camp Road, will be provided by Rancho Mission Viejo (RMV) as part of the Ranch Plan.

  Design guidelines within the *Ranch Plan Planned Community Program Text* provide for measures to minimize light spillage, compliance with which would be reviewed as part

of site development permit process. Since the Affordable Housing sites would all be located within the Planning Areas of the Ranch Plan, the Project would not introduce a new light source into areas not exposed to lighting.

- **Agricultural and Forestry Resources (all thresholds):** The Project would not result in any impacts to farmlands listed as "Prime", "Unique", or of "Statewide Importance" based on the 2010 Orange County Important Farmland Map prepared by the California Department of Conservation. All Affordable Housing sites will be within the Ranch Plan development area, and grading will be completed before RMV offers the Project sites to the County. Impacts associated with grading will be addressed by RMV as part of their grading permits. No part of the Project site or adjacent areas is zoned forest land, timberland or timberland zoned for Timberland Production, nor would the Project result in the loss of forest land or conversion of forest land to non-forest use.
- **Air Quality (odors):** The Project does not propose any land uses that are identified by the South Coast Air Quality Management District (SCAQMD) as major odor sources (e.g., wastewater treatment plants, agricultural operations, landfills, composting facilities, food processing plants, chemical plants, or refineries).
- **Biological Resources (all thresholds):** The Project would not have any impact to Biological Resources, because the Project would be constructed within the development areas of Ranch Plan on parcels that have already been graded and vegetation removed. The Affordable Housing parcels would be located within the Planning Areas consistent with the assumptions of the Southern Subregion Habitat Conservation Plan (HCP). Impacts to biological resources associated with the Ranch Plan and the required mitigation measures, have been assessed in conjunction with the Ranch Plan approval.
- **Cultural/Scientific Resources (all thresholds):** By the time the Project is implemented, all mass grading would have already occurred and the measures required by Final EIR (FEIR) 589 for the Ranch Plan to minimize impacts on cultural resources will have been implemented. Thus, there will be no native ground disturbance associated with the Project and no direct or indirect impacts to historical, archaeological, or paleontological resources would occur, nor would the Project disturb any human remains.
- **Geology and Soils (all thresholds):** The Affordable Housing sites would be developed on graded sites. Grading would be conducted by RMV as part of the grading for the Planning Area. Prior to issuance of grading permits, RMV would have to demonstrate that that appropriate measures, consist with CBC requirements, have been incorporated into the grading design to address seismic-related issues, site-specific soil conditions, and soil erosion. Additionally, before any grading of the Affordable Housing sites was permitted to occur, RMV would have been required to satisfy the applicable measures and regulatory requirements adopted in conjunction with the Ranch Plan. All buildings would be required to comply with the California Building Code in effect at the time of construction.

  The Project will be served by an existing sewer system and does not propose the use septic tanks or alternative wastewater disposal systems.
- **Hazards and Hazardous Materials (all thresholds):** The closest site to the Ranch Plan that is on the Hazardous Waste and Substance Site List (also known as the Cortese List) is the former Marine Corps Air Station (MCAS) El Toro, which is approximately 11 miles

from the closest Affordable Housing site. This is too great a distance to expose the public to hazardous materials.

In conjunction with grading of the Ranch Plan, RMV will implement the required measures associated with any known hazardous materials risks on site. Regulations in the Uniform Fire Code would apply to the handling of hazardous materials that are routinely used during construction and these regulations would reduce potential hazards to less than significant levels for the surrounding community and for any schools located within a quarter mile of future school sites.

John Wayne Airport is the closest commercial airport and is located approximately 18 miles from the Project site. There are no private airstrips in the vicinity of the Project site.

There are no designated evacuation routes within the Project site boundaries; therefore, the Project would not impair a designated evacuation route. Additionally, the Project would not impair the use of the arterial network that provides access to the Project site.

As part of the Ranch Plan project, a fuel modification zone is provided surrounding all development areas. Additional measures provided in the *Wildland Fire Management Plan* and *Ranch Plan Planned Community-Wide Fire Protection Plan* would provide the necessary emergency access and fire safety measures for development areas within the Ranch Plan. RMV's implementation of these required measures will minimize the potential significant risk of loss, injury, or death involving wildland fires.

- **Hydrology (groundwater supplies, drainage patterns, flood hazard):** The Project would not involve direct withdrawals of groundwater or substantially alter natural recharge. The total Project area is relatively small (approximately 30.0 to 44.6 acres, dependent upon the alternative selected) in relation to the total size of the groundwater subbasin. Additionally, it is assumed that the Project area will be developed as part of the Ranch Plan. In conjunction with grading of the Affordable Housing site, RMV is required to implement watershed management measures adopted in conjunction with FEIR 589 which ensure that the Ranch Plan would not result in alteration of stream courses or substantially increase the rate of runoff.

  The Project site will be located within the development areas of the Ranch Plan, and the Affordable Housing sites will be graded prior to the site becoming available for the development of affordable housing. The impacts associated with a 100-year flood hazard; exposure to flooding as a result of a levee or dam; and inundation by seiche, tsunami, or mudflow will be addressed, and corrective measures will be incorporated as part of the RMV grading permit processes for each Planning Area. The grading impacts and associated mitigation measures were previously evaluated in FEIR 589 for the Ranch Plan. Therefore, no housing or structures would be subjected to these hazards.

  Water supply utilities are discussed in 4.10, Utilities and Service Systems.

- **Land Use and Planning (divide an established community; conflict with habitat conservation plan, natural community conservation plan):** The Project would be integrated into the Ranch Plan development areas and would be developed to be compatible with surrounding uses. The Project would not have any physical impact on existing communities. The Project site is located within the Southern Subregion HCP; however, the affordable housing parcels will be within Planning Areas that are not within a "Reserve" area. Compliance with the provisions of the Southern Subregion HCP

(including conservation of open space) will be required of RMV when the Affordable Housing sites are graded.

- **Mineral Resources (all thresholds):** There is an existing sand mining operation in Planning Area 5; however, the development pad for the Affordable Housing site in Planning Area 5 would be graded prior to the County receiving the parcel. This Project would not have any new impacts on existing and potential mineral resources that were not previously addressed as part of FEIR 589.
- **Noise (airport; private airstrips):** There are no airports or private airstrips near the Ranch Plan area that would expose future residents, visitors, or employees to excessive noise on the Project sites.
- **Population and Housing (displacement of housing and people):** Since there would be no development on the Affordable Housing sites, the Project would not result in the displacement of any housing or a substantial number of people, and construction of replacement housing would not be required.
- **Transportation/Traffic (air traffic; hazards; emergency access; conflict with alternative modes):** There are no airports near the Ranch Plan area, and the Project would not impact operations at John Wayne Airport, the nearest airport.

  At the time the Project is constructed, conflicts associated with incompatible uses (current ranching or industrial operations) that could result in safety hazards would be eliminated. No uses are proposed that would result in incompatibility with surrounding areas, thereby resulting in safety hazards.

  Providing affordable housing would not conflict with the policies associated with alternative modes of transportation or result in any measures that would decrease performance or introduce safety hazards for these facilities.
- **Utilities and Service Systems (storm water drainage facility; landfill; solid waste compliance):** As part of the RMV development of the Planning Area, a storm drainage system would be constructed. Storm water collection facilities internal to the Affordable Housing parcels would be implemented and would drain to the storm drain system. As part of the Ranch Plan, the sizing of the storm drains and any associated infiltration basins or detention basins would account for the Affordable Housing development area.

  The waste disposal service serving the Project site would be required to abide by the applicable waste reduction and recycling programs required under existing regulations (Assembly Bill [AB] 341, the California Mandatory Commercial Recycling Law).

2.3.2 REVIEW AND APPROVAL PROCESS

The County as the Lead Agency has the principal responsibility for processing and approving the Project. The County will consider the information in this Program EIR in combination with other information that may be presented during the CEQA process and use this Program EIR in the decision-making or permitting processes. This EIR provides the analysis in support of the Mitigation Program that will, if the Project is approved, be made conditions of the Project and will be implemented through the CEQA-mandated Mitigation Monitoring and Reporting Program.

In accordance with CEQA, if it decides to approve the Project, the County of Orange is required to make appropriate findings for each potentially significant environmental impact identified in the Program EIR. If the Program EIR identifies significant environmental impacts that cannot be mitigated to a less than significant level through the adoption of mitigation measures or Project alternatives, the Lead Agency (and Responsible Agencies using this CEQA document for their respective permits or approvals) must decide whether the benefits of the Project outweigh any identified significant environmental effects that cannot be mitigated to below a threshold of significance. If the agency decides that the overriding considerations, including Project benefits, outweigh the significant, unavoidable impacts, then the agency (Lead Agency or Responsible Agency) is required to adopt a Statement of Overriding Considerations, which states the reasons that support its actions. Based on the findings in this Program EIR, only short-term cumulative construction air emissions and the greenhouse gas (GHG) emissions under the project-level threshold have been identified as significant, unavoidable impacts.

The Lead Agency's actions involved in implementing the Proposed Project are described in Section 3.0, Project Description. Other agencies that may have discretionary approval over the Project, or components thereof, including responsible and trustee agencies, are also listed in the Project Description.

This Draft EIR was prepared under the direction and supervision of OC Public Works/OC Planning, and will be circulated for a 45-day public review and comment period, as mandated by the State CEQA Guidelines (Section 15105). Any time during the public review period, written comments concerning the adequacy of the document can be submitted by interested public agencies and members of the public to the following address:

County of Orange – OC Public Works/OC Planning
Attention: Rose Fistrovic
300 N Flower Street
Santa Ana, CA 92703
or via email to Rose.Fistrovic@ocpw.ocgov.com

After the public review comment period, written responses to all written comments and oral testimony pertaining to environmental issues will be prepared as part of the Final Program EIR. As required by CEQA, responses to comments submitted by responsible public agencies will be distributed to those agencies for review at least ten days prior to consideration of the Final Program EIR by the Orange County Board of Supervisors, which is the decision-making body for the Project. The Board of Supervisors will consider whether to certify the Program EIR and to adopt findings relative to the Project's environmental effects. It will then take action to recommend outright approval, conditional approval, or denial of the Project.

2.4 ORGANIZATION OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

This Draft EIR is organized into seven sections, with each containing its own references section. A list of the Draft EIR sections and a brief description of their contents is provided below to assist the reader in locating information.

- **Section 1.0, Executive Summary:** This section provides summaries of the Project Alternatives, environmental impacts, and mitigation measures.
- **Section 2.0, Introduction, Project History and Setting:** This section briefly discusses the purpose of the Program EIR; describes the environmental review process; provides an overview of the Project history; describes the environmental setting of the Project; and gives an overview of the EIR's organization.
- **Section 3.0, Project Description:** This section provides a detailed description of the Project characteristics and a statement of the Project Objectives.
- **Section 4.0, Existing Conditions, Impact Analysis, Cumulative Impacts, and Mitigation Program:** This section contains subsections 4.1, Air Quality, through 4.10, Utilities and Service Systems. Within this section, the Project is discussed. Each subsection includes discussions on the following topics: background information (if applicable); regulatory setting (if applicable); methods (if applicable); existing conditions; thresholds of significance; impact analysis; cumulative impact analysis; mitigation program (if any); level of significance after mitigation; and references.
- **Section 5.0, Alternatives:** This section contains a discussion of alternatives that were developed to substantially reduce the significant unavoidable GHG impacts associated with the Project.
- **Section 6.0, Long-Term Implications:** This section contains a summary discussion of any significant unavoidable impacts; potential growth-inducing impacts; and any significant irreversible environmental changes that would be caused by the Project.
- **Section 7.0, Persons and Organizations Consulted:** This section lists the persons and organizations that were contacted to obtain data on the preparation of the Draft Program EIR.
- **Section 8.0, Preparers:** This section lists the persons that directly contributed to preparation of the Draft Program EIR.

Sections 1.0 through 8.0 are presented in the first volume of the Draft Program EIR. Additionally, the Program Draft EIR identifies five appendices that provide supporting information and technical analyses. These are identified as Appendices A through E and are provided separately.

2.5 ENVIRONMENTAL SETTING

As discussed above, the Project site is located within the Ranch Plan. The General Plan land use designations within the Ranch Plan include Suburban Residential, Open Space, Open Space Reserve, Urban Activity Center, Employment, and Public Facilities (County of Orange 2014b).

The Ranch Plan area is zoned PC, Planned Community.[1] Of the 22,683 acres within the Ranch Plan, approximately 16,915 acres (or approximately 74.57 percent) are identified for open space uses with 5,768 acres for development uses. Planning Areas 1 and 2 are currently being developed. The Affordable Housing sites for the Project would be located in Planning Areas 3, 4, 5, and 8.

To the north and west of the Ranch Plan are the cities of Rancho Santa Margarita, Mission Viejo, San Juan Capistrano, and San Clemente. Other large land developments in unincorporated Orange County and in the vicinity of the Project sites include the planned communities of Las Flores, Coto de Caza, and Ladera Ranch. U.S. Marine Corps Base (MCB) Camp Pendleton in San Diego County borders the southern edge of the Planned Community; Caspers Wilderness Park, the Cleveland National Forest, and several private properties in Riverside and San Diego counties border the Ranch Plan on its eastern edge.

Regional access to the Ranch Plan is via I-5 (which is located west of the Project site) and SR-241, which currently terminates at Oso Parkway, just north of the Planned Community limits. Ortega Highway (SR-74) runs east-west through the Planned Community. Antonio Parkway/La Pata Avenue provides north-south arterial highway access, and Avenida Pico in the city of San Clemente runs east-west and terminates near the southwestern boundary of the Ranch Plan.

Portions of the Ranch Plan have been used for agricultural, nursery, and other lease uses for the past 120 years. There are a number of commercial uses operating with leases. These include a large-scale commercial nursery and industrial-type leases, which are discussed in more detail in Section 4.4, Land Use. These uses, as well as the ranching operations, are served by several paved ranch roads and a network of unpaved ranch roads.

Several major public facilities and utilities exist within the Planned Community. These include the South County pipeline, which is owned by the SMWD; an electrical substation owned by San Diego Gas and Electric (SDG&E); high power electrical transmission lines owned by Southern California Edison (SCE) and SDG&E; and the Santa Fe Petroleum Pipeline, which is owned by Kinder Morgan. SMWD owns the Chiquita Water Reclamation Plant (CWRP), which is located in the center of Planning Area 2, but is not a part of the Ranch Plan. The County's Prima Deshecha Landfill is located at the western boundary of Planning Area 5.

Several creeks are located within the Ranch Plan boundaries. Just north of Ortega Highway, San Juan Creek flows in an east-west direction through the Ranch Plan. San Juan Creek is a major drainage basin that discharges into the Pacific Ocean in the vicinity of the city of Dana Point. Major tributaries to San Juan Creek are Arroyo Trabuco, Oso Creek, Cañada Chiquita, Cañada Gobernadora, Bell Canyon Creek, and Verdugo Canyon Creek. Cristianitos Creek is located south of Ortega Highway and traverses the Ranch Plan in a north-south direction. Major tributaries to Cristianitos Creek within the Ranch Plan are Gabino Canyon Creek, La Paz Creek, and Talega Canyon Creek. Cristianitos Creek is in the western portion of the San Mateo Creek Watershed.

[1] The *Ranch Plan Planned Community Program Text* provides the regulations and procedures that apply to each of the land use categories approved as a part of the Ranch Plan (County of Orange 2004b). The regulations and standards adopted as part of the *Ranch Plan Planned Community Program Text* would apply to the development and implementation of the Affordable Housing Project because it is the underlying zoning for the sites. In those cases where the standards differ from the Orange County Zoning Code, the *Ranch Plan Planned Community Program Text* standards would provide the applicable regulations.

The Ranch Plan contains a diverse population of flora and fauna species, including sensitive vegetation communities that provide habitat to sensitive species. These vegetation communities include, but are not limited to, scrub habitats, chaparral, vernal pools and seeps, riparian habitat, and woodland habitat. As discussed in more detail in Section 2.7.1, RMV is a participating landowner in the Southern Subregion HCP, which addresses a total of 32 species and is designed to provide long-term, large-scale protection of natural vegetation communities and wildlife diversity while allowing compatible land uses and appropriate development and growth. Also, noteworthy is the Gobernadora Ecological Restoration Area (GERA), which is a mitigation bank developed in Cañada Gobernadora (west of Planning Area 2) as replacement habitat for previously approved projects.

The geology of the area contains a wide variety of geological characteristics. Two faults—the Mission Viejo Fault and the Cristianitos Fault—traverse the Ranch Plan. The Cristianitos Fault is classified as inactive; the Mission Viejo Fault is classified as potentially active. The nearest known active fault is the Newport-Inglewood Fault, located 9.3 miles to the south. Landslides are located throughout the Ranch Plan, with the greatest number located west of the Cristianitos Fault.

2.6 PROJECT HISTORY

2.6.1 RANCH PLAN PLANNED COMMUNITY AND FEIR 589

The Ranch Plan project was developed in coordination with the Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (NCCP/MSAA/HCP) and the Special Area Management Plan (SAMP) planning programs to ensure that the Ranch Plan project was substantially consistent with the draft planning guidelines and principles formulated to address biological and water resources in the larger subregion. In addition, a third process, the South County Outreach and Review Effort (SCORE), was developed by the County of Orange to seek input from the community on the project.

As part of the CEQA process, the County of Orange prepared *The Ranch Plan Program EIR 589*, (EIR 589) which was released for a 61-day public review period on June 10, 2004. The County received 193 written comments (letters and emails) during the public review period on Draft EIR 589. All these comments were responded to in writing and are part of FEIR 589. In addition, five public meetings were held before the Orange County Planning Commission.

On November 8, 2004, the Orange County Board of Supervisors approved a General Plan Amendment (Resolution No. 04-291), Zone Change (Resolution No. 04-292 and Ordinance No. 04-014), and Development Agreement (Resolution No. 04-293 and Ordinance No. 04-015) for the 22,815-acre Ranch Plan project. The Board of Supervisors selected Alternative B-10 Modified, which established a blueprint for the long-term conservation, management, and development of the last large-scale, integrated landholding in south Orange County. This alternative allowed for the construction of 14,000 dwelling units, 3,480,000 square feet of Urban Activity Center (UAC) uses on 251 acres, 500,000 square feet of Neighborhood Center uses on 50 acres, and 1,220,000 square feet of business park uses on 80 acres, all of which were proposed to occur on approximately 7,683 acres of the Ranch Plan. The balance of the Ranch Plan, totaling approximately 15,132 gross acres (or approximately 66.32 percent), was identified for open space uses.

Concurrent with the foregoing approvals, the Board of Supervisors adopted Resolution No. 04-290, certifying FEIR 589 as complete, adequate, and in full compliance with the requirements of CEQA and the State CEQA Guidelines. A Findings of Fact and a Statement of Overriding Considerations were adopted as part of the approval process. The Findings of Fact for unavoidable adverse impacts were made for the following topical areas: land use and relevant planning, agricultural resources, water resources, air quality, noise, aesthetics and visual resources, mineral resources, fire protection services and facilities, traffic and circulation, and biological resources.

Subsequent to the certification of the FEIR, the City of Mission Viejo and a coalition of concerned environmental groups (Resource Organizations) filed separate actions in the Orange County Superior Court challenging the Board of Supervisors' approval of the Ranch Plan project and its certification of FEIR 589 (Orange County Superior Court Case Nos. 04CC11999 and 04CC01637). The parties managed to achieve full settlement of the lawsuits, with dismissal of the individual lawsuits following thereafter.

The settlements collectively provided for certain refinements to the Ranch Plan project that, in effect, increased the amount of open space that will be permanently protected and managed (i.e., from approximately 15,132 gross acres to 16,942 gross acres) and reduced the acreage available for development activities (i.e., from approximately 7,683 acres to 5,873 acres). The refinements focused on further protection of resources by concentrating development in the areas with lower biological resource values while continuing to protect high resource values, including the vast majority of the western portion of the San Mateo Creek Watershed within the Ranch Plan.

2.6.2 AFFORDABLE HOUSING IMPLEMENTATION AGREEMENT

Affordable Housing Implementation Agreement

On July 18, 2006, the Orange County Board of Supervisors approved the AHIA pursuant to the RMV Development Agreement for the Ranch Plan. The AHIA requires that RMV provide the County with Affordable Housing sites that are between approximately 2 and 10 acres, for a total of 60 gross acres of property, for the development of affordable housing projects. The AHIA requires RMV to grade the Affordable Housing sites, provide access, and provide the opportunity to obtain utility services for the Project sites. In the AHIA, RMV makes a commitment to phasing of the Affordable Housing sites concurrently with development of the Ranch Plan. The Affordable Housing units developed on sites provided under the AHIA do not count against the 14,000 dwelling unit cap of the Ranch Plan.[2]

The AHIA sets forth the process, requirements and timeframes for RMV to satisfy its obligations to provide Affordable Housing sites under the Development Agreement. Under the original terms of the AHIA, should the County decide to implement an Affordable Housing project on a site identified by RMV, it is the County's responsibility to select and enter into an agreement with a

[2] In order to ensure consistency between the County General Plan and the *Ranch Plan Planned Community Program Text*, the Planned Community (PC) Statistical Table is used to track the number of units and the acreage/square footage constructed in the Ranch Plan to ensure that the maximum number of residential dwelling units or the square footage/acreage of other uses do not exceed the approved levels. The AHIA and Addendum One to the AHIA assume that the Affordable Housing would be over and above the Ranch Plan's 14,000 dwelling unit cap. Therefore, the Affordable Housing units would not be reflected on the PC Statistical Table the analysis. The PC Statistical Table is shown and further discussed in Section 4.4, Land Use and Planning.

builder through a Request for Proposal (RFP) process (as defined in the AHIA). If the County decides not to initiate an RFP process, or if the RFP process is not completed within 18 months after distribution of the RFP, the AHIA provides that RMV's obligation with respect to the Affordable Housing site would be deemed satisfied, and that its obligation to provide 60 gross acres would be reduced by the amount of acreage of the Affordable Housing site. Otherwise, RMV's obligations with respect to an Affordable Housing site are deemed satisfied and acreage for the housing site deducted from the 60-acre total obligation, when either an Irrevocable Offer of Dedication (IOD) or Deed conveying the Affordable Housing site to the County is recorded as to the site.

Addendum One to the Affordable Housing Implementation Agreement

On December 17, 2013, the Orange County Board of Supervisors approved an addendum to the AHIA (Addendum One), which authorizes the use of the Private-Sector Alternative[3] method for development of affordable housing projects in Planning Areas 1 and 2 of the Ranch Plan. Addendum One to the AHIA acknowledges that the Private-Sector Alternative method for development may be allowed for affordable housing projects throughout other Planning Areas of the Ranch Plan, if successful.

The Private-Sector Alternative method for development allows RMV to enter into a long-term ground lease with an affordable housing builder. The County may review the ground lease to confirm that the applicable development standards, including the minimum density of 25 units per net acre, have been incorporated as part of the ground lease. RMV would also record a covenant that would restrict the use of the Affordable Housing site to low, very low, and extremely-low income households for a period of 55 years (referred to as the "AH Restricted Period" in Addendum One).

Under the Private-Sector Alternative method for development, RMV would provide all required infrastructure and construction at no cost to the County and, upon recordation of an IOD for a Affordable Housing site, RMV would get a credit toward its 60-acre obligation, equal to the actual gross acreage of the Affordable Housing site(s) subject to the IOD, multiplied by a factor of two. Under the IOD, the County would be entitled to receive a fee simple interest in the site upon acceptance of the IOD. The IOD is required to contain an express condition that the County's acceptance of the IOD, if at all, shall occur not sooner than 15 years, nor later than 55 years, following recordation of the IOD. If the IOD has not been accepted by the end of the AH Restricted Period, Addendum One provides that the IOD shall automatically terminate and be of no further effect, and that the County shall record a quit claim deed as to any interest it may have in the Housing Site(s) subject to the IOD.

[3] The AHIA Addenda reference the Private-Sector Alternative for providing affordable housing in the Ranch Plan. This terminology is used because this option would rely on the private sector to finance and implement all the required infrastructure and to construct the affordable housing development at no cost to the County. As discussed in Section 3.0, Project Description, this EIR evaluates two scenarios with differing amounts of development using this private-sector method for development.

Affordable Housing in Planning Areas 1 and 2

Consistent with Addendum One to the AHIA, RMV is currently developing two affordable housing projects within Planning Areas 1 and 2, under the Private-Sector Alternative method for development. The first site is in Planning Area 1 in the northeast quadrant of the Antonio Parkway/Ortega Highway intersection. The site consists of 3.4 gross acres and will provide at least 107 age-qualified senior apartments (restricted to age 55 years old and older); 70 percent of these apartments would be for low income households and 30 percent would be for very-low income households. There would be a mix of one bedroom and two bedroom apartment units. A pool and clubhouse facility will also be provided. Construction of the affordable housing site in Planning Area 1 is expected to begin in 2016.

The second site is within Planning Area 2 (Subarea 2.1) (north of Cow Camp Road and west of Los Patrones Parkway). This site consists of 4.4 gross acres and would consist of 112 family apartments (for all ages); 70 percent of these apartments would be for low income households and 30 percent would be for very-low income households. There will be 20 one-bedroom units; 58 two-bedroom units; and 34 three-bedroom units. A pool and a clubhouse facility will also be provided. Construction of the affordable housing site in Planning Area 2 is expected to begin in 2016.

As a result of utilization of the Private-Sector Alternative method for development provided for in Addendum One to the AHIA and as a result of the calculation of the Dedicated Lands credit provided thereunder, the projects in Planning Areas 1 and 2 result in a total Dedicated Lands credit of 15.6 acres (an initial credit of 7.8 gross acres for the development of the 2 sites, plus an additional 7.8 acres of credit for use of the Private-Sector Alternative method for development). This leaves 44.4 acres of Dedicated Lands in the remainder of the Ranch Plan.

2.6.3 SUBSEQUENT APPROVALS AND MODIFICATIONS TO THE RANCH PLAN

City of San Juan Capistrano Annexation

In 2009, the City of San Juan Capistrano purchased 132 acres of the Ranch Plan in the southwest quadrant of the intersection of Antonio Parkway and Ortega Highway. This reduced the development area in Planning Area 1 by 105 acres. The property was annexed into the City for use as recreational open space (i.e., the Rancho Mission Viejo Riding Park at San Juan Capistrano). This change to a portion of the Ranch Plan area resulted in administrative corrections to the Ranch Plan Planned Community Development Map and PC Statistical Table in February 2011.

Master Area Plan and Subarea Plan Approvals

Per the *Ranch Plan Planned Community Program Text,* a Master Area Plan is required for each planning area proposed for development. A Master Area Plan shows the relationship of proposed uses in the entire planning area. A Master Area Plan consists of a map, a set of statistics, and text that describe the location, density, and intensity of proposed uses in a planning area (the full requirements are listed in Section II.B.3.a of the *Ranch Plan Planned Community Program Text*).

It is a tool to describe how special features or planning concerns will be addressed. All grading, development, and improvements shall be in substantial conformance with the provisions of the approved Master Area Plan.

The Master Area Plan will divide the planning area into subareas. Prior to approval of any subdivision in each subarea, a Subarea Plan shall be prepared. The Subarea Plans must be consistent with the Master Area Plan. The Subarea Plans provide more detail on the proposed development. The Subarea Plans provide information on the key features of the development proposed in the Subarea. This would include, but not be limited to (1) the specific residential use categories and other non-residential uses; (2) locations and acreage of park, recreation, and other open space uses; (3) circulation features; (4) a concept grading plan; and (5) community facility locations. The full requirements of Subarea Plans are identified in the *Ranch Plan Planned Community Program Text*.

RMV has processed the Master Area Plans and Subarea Plans for Planning Areas 1 through 4. No Master Area Plans or Subarea Plans have been processed for the remaining Planning Areas. Planning Area 1, also known as the Village of Sendero, opened for sale in mid-summer of 2013; Planning Area 2, also known as the Village of Esencia, opened for sale in summer of 2015; grading has not started on Planning Areas 3 and 4.

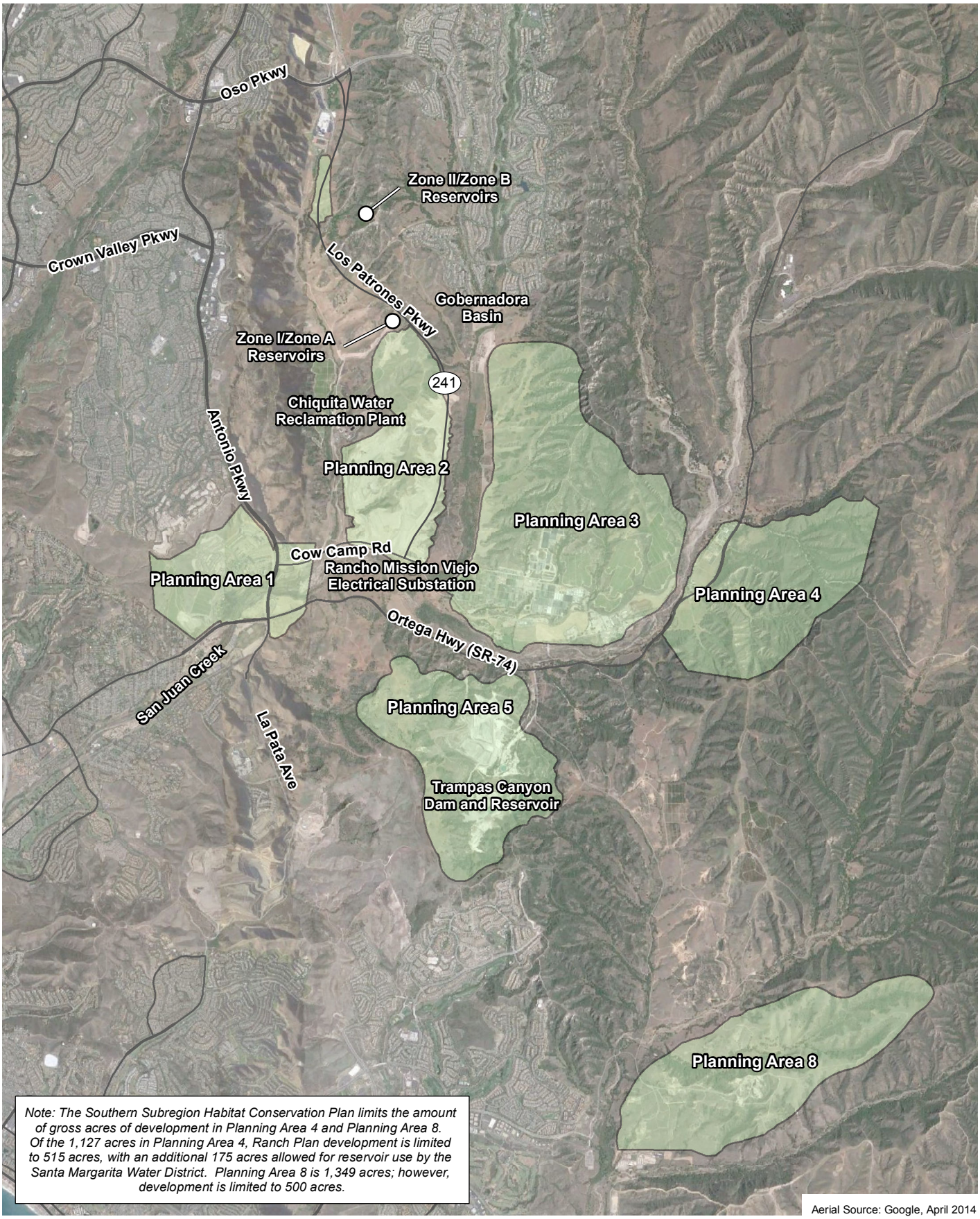
Infrastructure Improvements

Infrastructure improvements have been approved to support the Ranch Plan. These improvements are discussed below and their locations are depicted on Exhibit 2-1, Supporting Infrastructure. Exhibit 2-1 also identifies the locations of other projects in the area, which are discussed in Section 2.8 of this Program EIR.

Cow Camp Road. Cow Camp Road is proposed as an east-west arterial highway with up to a 60 mile per hour (mph) design speed that will extend from Antonio Parkway to Ortega Highway (SR-74) near the common boundary of the Ranch Plan and Caspers Wilderness Park. The roadway is a six-lane major road that runs through Planning Areas 1 and 2, and a four-lane primary that goes through Planning Area 3. The cross-section of the roadway east of Planning Area 3 is being evaluated as part of the final design process. Based on the preliminary traffic analysis, only a two-lane roadway is required as it crosses San Juan Creek and connects to Ortega Highway.[4] The north half of the roadway segment adjacent to and within Planning Areas 1 and 2, known as "Segment 1", was completed in fall 2015. The design for the southern half of Segment 1 is anticipated to be completed in 2016; however, the timing of construction will be dependent on travel demand and is not known at this time. The extension of the roadway from the eastern edge of Planning Area 2 over to Ortega Highway (known as "Segment 2") is under design. Construction of Segment 2 is expected to begin in 2017 and take 18 months to complete.

Water Reservoir Facilities. To serve Planning Areas 1, 2, and 3, the SMWD has constructed several water conveyance and storage facilities located in Chiquita Canyon. These facilities were included in the analysis contained in FEIR 589 as part of the Ranch Plan. Facilities constructed in 2011 include two 2.0-million-gallon (MG) domestic water (DW) reservoirs, and one 4.0-MG

[4] The Project Report for Segment 2 of Cow Camp Road, which demonstrated the need for only two lanes across San Juan Creek is expected to be approved in 2016. An amendment to the Master Plan of Arterial Highways (MPAH) and the General Plan Circulation Element would then be processed to reflect this reduced cross-section.



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Supporting Infrastructure

Exhibit 2-1

Orange County Affordable Housing Implementation Plan Program EIR

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recycled water reservoir, and their required transmission network (SMWD 2011). Additionally, construction was initiated in 2015 on one 3.0-MG domestic water reservoir and one 2.0-MG recycled water reservoir, both of which are also located in Chiquita Canyon, south of Tesoro High School (SMWD 2015a). These facilities are known as the Zone I/Zone A Reservoirs and the Zone II/Zone B Reservoirs.

Rancho Mission Viejo Electrical Substation. SDG&E constructed a new substation within the boundary of Planning Area 2 to ensure adequate electrical service for the Ranch Plan and to ensure reliability of service to existing customers. The substation is located at the southeastern corner of Planning Area 2, north of San Juan Creek (County of Orange 2008). The substation has been named the Rancho Mission Viejo Substation and has been operational since October 2011.

Los Patrones Parkway. Los Patrones Parkway (previously known as "F" Street) will provide a north-south roadway that will enhance access to the roadway network beyond the Ranch Plan. This roadway was assumed in FEIR 589 as a north-south arterial traversing a portion of Planning Area 2 and connecting to Oso Parkway in the scenario that assumed SR-241 was not extended.

Los Patrones Parkway will be developed as a rural secondary highway and will connect at Oso Parkway at the intersections of the on- and off-ramps from the existing SR-241. Extending south, it will run through Planning Area 2 before connecting to Cow Camp Road at the southern boundary of Planning Area 2 in Subarea 2.1. This arterial road will consist of 2 general purpose lanes in both directions of travel with a variable width median (i.e., 4 to 14 feet). A pedestrian and bicycle trail will be located on the west side of Los Patrones Parkway to provide for opportunities for alternative non-motorized vehicular transportation modes. Geometric approval for Los Patrones Parkway was granted by the County of Orange in 2014. The portion of Los Patrones Parkway located adjacent to the development in Planning Area 2 has been graded. Construction of Los Patrones Parkway began in 2016 and is expected to take one to two years.

As the Ranch Plan is constructed, additional infrastructure improvements will be required. The key backbone facilities are identified through the Master Area Plans, Subarea Plans, and subdivision processes.

2.7 REGULATORY AGENCIES PLANS AND APPROVALS

As previously noted, concurrently with the development of the Ranch Plan, two other major planning and regulatory programs were developed: the Southern Subregion NCCP/MSAA/HCP and the SAMP. Both of these plans integrated the development of the Ranch Plan into their baseline assumptions. Additionally, the Ranch Plan project was further and subsequently influenced by input received from the general public, the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the U.S. Fish and Wildlife Service (USFWS) as a result of these planning programs. The refinements resulted in what is referred to as "Alternative B-12", a plan that is consistent with the settlement agreements and reflects what was approved as part of the Southern Subregion HCP and the SAMP. All subsequent discussion of the Ranch Plan in this Program EIR refers to Alternative B-12 outlined in the settlement agreements unless otherwise noted.

These plans, and their associated approvals, will not be affected by the Project. All these approvals will continue to apply to the Ranch Plan. Development of the Project would not conflict

with these planning programs because the Affordable Housing site locations (i.e., building pads) will have been graded prior to the initiation of construction of the affordable units. An overview of these planning programs is provided for context of the regulatory setting for the Project area.

2.7.1 SOUTHERN SUBREGION NCCP/MSAA/HCP AND FEIR 584

The Southern Subregion NCCP/MSAA/HCP and its EIR/Environmental Impact Statement (EIS) were prepared by the County of Orange in cooperation with the CDFW and the USFWS and in accordance with the provisions of the NCCP Act, the California Endangered Species Act (CESA), the Federal Endangered Species Act (FESA), and Section 1600 et seq. of the *California Fish and Game Code.* The Southern Subregion NCCP/MSAA/HCP provides for the conservation of designated State- and federally listed and unlisted species and associated habitats that are currently found within the 132,000-acre NCCP/MSAA/HCP study area. The NCCP/MSAA/HCP is a voluntary, collaborative planning program involving landowners, local governments, State and federal agencies, environmental organizations, and interested members of the public. The purpose of the NCCP Program is to provide long-term, large-scale protection of natural vegetation communities and wildlife diversity while allowing compatible land uses and appropriate development and growth. The NCCP process was initiated to provide an alternative to "single species" conservation efforts. The shift in focus from single species, project-by-project conservation efforts to large-scale conservation planning at the natural community level was intended to facilitate regional and subregional protection of a suite of species that inhabit a designated natural community or communities.

The proposed Conservation Strategy of the plan "focuses on long-term protection and management of multiple natural communities that provide habitat essential to the survival of a broad array of wildlife and plant species" (County of Orange 2006e). The NCCP/MSAA/HCP creates a permanent habitat reserve consisting of (1) 11,950 County of Orange-owned acres contained within 3 existing County regional and wilderness parks (O'Neill Regional Park, Riley Wilderness Park, and Caspers Wilderness Park) and (2) 20,868 acres owned by RMV.

To address the potential impacts associated with the NCCP/MSAA/HCP, the Joint Programmatic EIR/EIS was prepared, which identified future projects that would be undertaken by the participating landowners (i.e., the County of Orange, the SMWD, and RMV). With the approval of the Southern Subregion HCP and issuance of the Incidental Take Permits (ITPs) by USFWS, these projects became "Covered Activities". The Ranch Plan and its associated infrastructure were identified as an RMV Covered Activity.

With respect to the CEQA document, the County of Orange Board of Supervisors certified the EIR (FEIR 584) on October 24, 2006. With respect to the National Environmental Policy Act (NEPA) documentation, the USFWS distributed the Final EIS for public review on November 13, 2006. The Implementation Agreement (IA) was signed by the Participating Landowners (i.e., the County, RMV, and SMWD) in December 2006. The USFWS issued a Record of Decision, signed the IA, approved the Southern Subregion HCP, and issued FESA Section 10(a)(1)(B) ITPs to RMV and the SMWD for federally listed species on January 10, 2007 (1-6-07-F-812.8) (the Opinions) for the HCP component of the Draft Southern Subregion NCCP/MSAA/HCP, referred to hereinafter as the "Southern Subregion HCP".

The Opinions state that proposed incidental take will occur as a result of habitat loss and disturbance associated with urban development and other proposed activities (i.e., Covered

Activities) identified in the Southern Subregion HCP. The Opinions further identify "construction of residential, commercial, industrial and infrastructure facilities" as an RMV-Covered Activities. The Opinions address 6 federally listed animals, 1 federally listed plant, and 25 unlisted plants and animals for a total of 32 species.

The CDFW issued an MSAA for the Ranch Plan on September 29, 2008. The MSAA covers the activities associated with implementing the approved development. The covered activities include (1) development in Planning Areas 2, 3, 4, 5, and 8;[5] (2) cultivation of orchards; (3) roadway improvements; (4) construction of bikeways and trails; (5) sewer and wastewater facilities; (6) drainage, flood-control, and water quality facilities; (7) maintenance of existing facilities within the Ranch Plan boundary; (8) habitat restoration; (9) geotechnical investigations; and (10) relocation of the RMV headquarters.

2.7.2 SPECIAL AREA MANAGEMENT PLAN

A SAMP is a voluntary watershed-level planning and USACE permitting process involving local landowners and public agencies that seek permit coverage under Section 404 of the Federal Clean Water Act for future actions that affect jurisdictional "waters of the U.S.". The purpose of a SAMP is to provide for reasonable economic development and the protection and long-term management of sensitive aquatic resources (biological and hydrological). Under a SAMP, to the extent feasible, federal "waters of the U.S." (including wetlands) are avoided and unavoidable impacts are minimized and mitigated. The San Juan Creek and Western San Mateo Creek Watersheds SAMP provides a framework for permit coverage for the San Juan Creek Watershed (approximately 113,000 acres) and the western portion of the San Mateo Creek Watershed (approximately 15,104 acres). The SAMP study area includes the Ranch Plan area.

The SAMP, which was approved by the USACE in 2007, establishes three regulatory permitting procedures: (1) Regional General Permit Procedures for Maintenance Activities Outside of the Ranch Plan Planned Community; (2) Letter of Permission Procedures for Future Qualifying Applicants Subject to Future Section 404(b)(1) Guidelines Review Outside the Ranch Plan Planned Community; and (3) Long-Term Individual Permits/Letters of Permission for Dredge and Fill Activities within the Ranch Plan Planned Community. With respect to the Ranch Plan, the USACE issued an Individual Permit of extended duration to specify allowable impacts to "waters of the U.S." over the life of the Ranch Plan project. The long-term Individual Permit requires additional review and analysis as individual projects are proposed within the Ranch Plan to ensure consistency with allowable impacts and the terms and conditions of this long-term Individual Permit. The USACE will review specific activities under the Letter of Permission procedures for the geographic area covered by the Individual Permit as each activity is proposed for implementation.

[5] Planning Area 1 was permitted separately through a standard Streambed Alteration Agreement.

2.8 OTHER PROJECTS IN THE AREA

2.8.1 STATE ROUTE 241

The Foothill Transportation Corridor (FTC) has been on the Orange County Master Plan of Arterial Highways (MPAH) since 1981 and is designated a Transportation Corridor. The route was identified to run along the foothills in southeastern Orange County parallel to I-5. In 1986, a joint-powers authority, known as the TCA, was formed to oversee the planning, design, financing, and construction of the FTC and two other toll roads in Orange County. The Foothill/Eastern TCA is responsible for the planning, design, and construction of the FTC. Recognizing the regional nature of the toll roads, the FTC was added to the State Highway System and designated as SR-241 in 1993. Once constructed, the roadway is transferred to the State of California.

SR-241 has been constructed from SR-91 in the City of Yorba Linda south to Oso Parkway, near the City of Rancho Santa Margarita, a distance of over 24 miles. An extension of the route south to I-5 just south of the Orange/San Diego County line has been the subject of engineering and environmental studies for over 30 years. However, at this time, no plan has received all the necessary regulatory approvals.

Plans to complete SR-241 from its current terminus (at Oso Parkway) to I-5 have been analyzed for more than 30 years. An EIR/EIS was prepared addressing the environmental impacts of this approximate 14-mile southerly extension. A preferred alignment was selected by the Foothill/Eastern TCA, the Federal Highway Administration (FHWA), the U.S. Environmental Protection Agency (USEPA), the USFWS, the USACE, and Caltrans. The selected route would extend through Planning Areas 2 and 5 of the Ranch Plan, would cross into San Diego County, and would connect to I-5 in the vicinity of the San Onofre Nuclear Generating Station. The southern portion of the alignment is within the California Coastal Zone, which required approval of the alignment by the California Coastal Commission (CCC). In 2008, the CCC rejected the selected alignment, stating it is inconsistent with the California Coastal Act. This decision was appealed by the Foothill/Eastern TCA to the Secretary of Commerce (TCA 2008). In December 2008, the Secretary of Commerce upheld the CCC's decision.

In October 2011, engineering and environmental work began on a plan to extend the current SR-241 toll road from its existing terminus at Oso Parkway to Cow Camp Road in Planning Area 2, a distance of approximately 5.5 miles. This segment, which is known as the Tesoro Extension, is outside the Coastal Zone and avoids all water subject to federal jurisdiction. In February 2013, the Foothill/Eastern TCA prepared an *Addendum to the South Orange County Transportation Infrastructure Improvement Project Final Subsequent Environmental Impact Report*, which focused on the Tesoro Extension. However, in June 2013, the San Diego Regional Water Quality Control Board (San Diego RWQCB) denied the Foothill/Eastern TCA's application for a Waste Discharge Permit per the Porter-Cologne Water Quality Control Act. The Foothill/Eastern TCA filed for the State Water Resources Control Board's (SWRCB's) review of the denial, requesting that the San Diego RWQCB provide the factual and legal basis for its decision. The petition was heard by the SWRCB on September 23, 2014. At that meeting, the State Water Board remanded the matter to the San Diego RWQCB with direction to provide the factual and legal basis for its decision (San Diego RWQCB 2015).

On March 16, 2015, the San Diego RWQCB adopted detailed findings describing the basis of its decision to deny adoption of the Waste Discharge Requirements for Foothill/Eastern Transportation Corridor Agency, Tesoro Extension (SR-241) Project, Orange County (Revised Tentative Order No. R9-2013-0007) (San Diego RWQCB 2015). On April 14, 2015, the Foothill/Eastern TCA filed an appeal with the SWRCB to review the resolution adopted by the San Diego RWQCB. The Foothill/Eastern TCA is currently waiting for the appeal to be heard by the State.

The proposed Tesoro Extension alignment is similar to the Los Patrones Parkway alignment. On September 5, 2014, the Foothill/Eastern TCA entered into an option agreement (Option Agreement) with RMV to obtain the right-of-way for the Tesoro Extension. In relevant part, the Option Agreement provides that the agreement may be terminated by RMV in the event that RMV, prior to exercise of the option by Foothill/Eastern TCA, obtains permits and funding for, and elects to proceed with, construction of Los Patrones Parkway. As discussed above in Section 2.6.3, construction of Los Patrones Parkway is ongoing.

2.8.2 LA PATA AVENUE GAP CLOSURE AND CAMINO DEL RIO EXTENSION PROJECT

The La Pata Avenue Gap Closure and Camino Del Rio Extension Project is designed to complete the planned improvements for La Pata Avenue as identified in the County of Orange Master Plan of Arterial Highways.[6] When complete, the improvements would connect Avenida la Pata in the City of San Clemente with La Pata Avenue in the City of San Juan Capistrano via a 4-lane roadway, a distance of about 4.5 miles. The roadway, which crosses the Prima Deshecha Landfill in unincorporated Orange County, will provide a north-south roadway inland to I-5. The improvements will accommodate pedestrians and bicyclists by constructing streetlights, bike lanes, and sidewalks. It will also enhance trail connectivity through the construction of a pedestrian bridge that links the Prima Deshecha Trail and Forster Ridgeline Trail.

The County of Orange approved the contract for construction in December 2013 and construction was initiated in April 2014. Construction of the roadway is proposed in three phases. The first phase—which requires the removal of refuse from the Prima Deshecha Landfill, relocation of major utility lines, drainage improvements, and bridge construction—will provide four travel lanes from the existing La Pata Avenue just south of Vista Montana to Calle Saluda, a distance of approximately 2.27 miles. This phase is expected to be completed in fall 2016. The second phase will widen the existing La Pata Avenue with one additional travel lane in each direction between Ortega Highway and just south of Vista Montana. This phase is expected to start in 2016 and is projected to be completed in 2017 or 2018. The final phase will extend Camino del Rio from its current terminus to the newly extended La Pata Avenue (County of Orange 2014a).

The project is funded by State and local financing, including funding from the Orange County Transportation Authority's (OCTA's) Renewed Measure M (M2), the Ladera Ranch and the Rancho Mission Viejo Community Facilities Districts, State Proposition 1B Funds, the La Pata Road Fee Program, OC Waste & Recycling, the OC Public Works Road Fund (State Gas Tax), the

[6] The roadway is known as Avenida la Pata in the City of San Clemente and La Pata Avenue in unincorporated Orange County and the City of San Juan Capistrano.

City of San Juan Capistrano, the South County Roadway Improvement Program (SCRIP), and the City of San Clemente (County of Orange 2014c).

Though the La Pata Avenue Extension would not provide direct access to any of the Affordable Housing sites, it will provide improved access to the Ranch Plan and has been assumed as part of the roadway network serving the Proposed Project.

2.8.3 CHIQUITA WATER RECLAMATION PLANT EXPANSION

The Chiquita Water Reclamation Plan (CWRP) Expansion Project involves the upgrade and expansion of the CWRP to provide preliminary, primary, secondary, and tertiary wastewater treatment for flows up to 10.5 million gallons per day (mgd). The secondary treatment system will be expanded from its current permitted capacity of 9.0 mgd up to the projected future flow of 10.5 mgd. Additionally, the tertiary treatment capacity to produce Title 22 reclaimed water for recycling and reuse will be expanded from its current permitted capacity of 5.0 mgd up to the projected future flow of 10.5 mgd. The solids handling systems, biogas handling systems, odor control, and other ancillary mechanical, electrical, and instrumentation systems will also be upgraded and expanded to serve the projected future flows and loadings at the CWRP. Additionally, the project includes the construction of a biosolids reduction system that will reduce the CWRP's volume of biosolids by transforming the waste into a biofuel that can be used to power the reduction system and to produce additional renewable energy for SMWD use. The Mitigated Negative Declaration was approved by the SMWD Board of Directors in February 2014. The implementation will be phased. Equipment modifications have been initiated and other improvements will occur over the next few years. Wastewater flows from the Project would be directed to the CWRP.

2.8.4 TRAMPAS CANYON DAM AND RESERVOIR

The Trampas Canyon Dam and Reservoir, located in Planning Area 5 of the Ranch Plan, is currently being used as a retention facility for tailings from the sand mining operation to a reservoir for storage of recycled water.

The SMWD is proposing to reconstruct a recycled water storage reservoir; to reconstruct the earth fill dam; to construct a new pump station; to relocate the emergency spillway; and to construct access roads. This proposed project is detailed in the *Preliminary Design Report: Trampas Canyon Dam and Reservoir, Orange County, California* prepared by URS and available for review at SMWD (URS 2015). As discussed previously, the Trampas Canyon Dam and Reservoir is currently used as a tailings retention facility for a quarry located in Trampas Canyon. The SMWD proposes to acquire and reconstruct the Trampas Canyon Dam and Reservoir to increase the available recycled water storage capacity. The Project would involve reconstruction of the existing dam and additional grading activities to allow for 5,000 acre-feet of recycled water storage. The proposed reservoir is intended to provide seasonal and operational storage for recycled water to meet demands for nondomestic water in South Orange County within SMWD's service area, including the Proposed Project. It is anticipated that the majority of the recycled water would be supplied by the Chiquita Water Reclamation Plant (CWRP) and may be supplemented with other non-domestic supply sources (SMWD 2015b).

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3.0 PROJECT DESCRIPTION

3.1 PURPOSE OF THE PROJECT DESCRIPTION

The purpose of the Project Description is to describe the alternative development levels associated with implementing the Affordable Housing Implementation Agreement for Rancho Mission Viejo (AHIA) in Planning Areas 3, 4, 5, and 8 of the Ranch Plan in a way that allows for meaningful review of the potential environmental impacts by the public, reviewing agencies, and decision makers. Reference in this document to "Affordable Housing" is intended to mean the affordable dwelling units that would be constructed as part of this Project. Section 15124 of the California Environmental Quality Act (CEQA) Guidelines requires that the project description for an EIR contain (1) the precise location and boundaries of a proposed project; (2) a statement of objectives sought by the proposed project including the underlying purpose of the project; (3) a general description of the project's technical, economic, and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR, including a list of the agencies that are expected to use the EIR in their decision making; a list of the permits and other approvals required to implement the project; and a list of related environmental review and consultation requirements required by federal, State, or local laws, regulations, or policies. An adequate project description need not be exhaustive, but should supply the detail necessary for project evaluation.

An environmental impact report (EIR) is the most comprehensive form of environmental documentation identified in CEQA and the State CEQA Guidelines. The following project description provides the information needed to assess the environmental effects associated with the development, construction, and operation of the proposed Project.

3.2 PROJECT LOCATION

The Project site is comprised of multiple locations within Planning Areas 3, 4, 5, and 8 of the Ranch Plan Planned Community (the Ranch Plan), which is located in unincorporated Orange County adjacent to the planned community of Ladera Ranch and the cities of San Juan Capistrano and San Clemente on the west; the city of Rancho Santa Margarita on the north; Marine Corps Base (MCB) Camp Pendleton in San Diego County on the south; and Caspers Wilderness Park and the Cleveland National Forest on the Ranch Plan's eastern edge. The regional location and local vicinity are shown on Exhibit 1-1, provided in Section 1.

3.3 PROJECT OBJECTIVES

Section 15124(b) of the State CEQA Guidelines requires "A statement of objectives sought by the proposed project. A clearly written statement of objectives would help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and would aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project". Not only is a project analyzed in light of its objectives, compatibility with project objectives is one of the criteria used in selecting and evaluating a reasonable range of project alternatives. Clear project objectives

simplify the selection process by providing a standard against which to measure project alternatives.

The following objectives have been identified for the Project:

- To provide Affordable Housing in the unincorporated portion of Orange County consistent with the goals of the County Housing Element.
- To utilize opportunities under the AHIA to assist the County in meeting the Regional Housing Needs Assessment (RHNA) allocation for affordable housing in unincorporated areas of the County.
- To identify a reliable method for implementation of the Project within the Ranch Plan, allowing for flexibility in light of uncertain future resources of the County of Orange.
- To provide affordable housing opportunities that meet the demand of a substantial portion of the lower income population in Orange County.

3.4 DESCRIPTION OF THE PROJECT

As provided for in the AHIA, Rancho Mission Viejo (RMV) has agreed to set aside land for the development of rental housing for low and very low income households[1] in conjunction with the development of the Ranch Plan. These sites are identified as Dedicated Lands in the AHIA and are referenced as either Dedicated Lands or Affordable Housing sites in this EIR. Development of the Affordable Housing sites under the AHIA, as described and proposed herein, may be referenced as "the Project" or "development of the Affordable Housing sites." Development of the Affordable Housing sites would be constructed at no less than 25 dwelling units per net acre.[2] The Affordable Housing sites will be between two and ten acres in size and distributed throughout Planning Areas 3, 4, 5 and 8 of the Ranch Plan.

The Project proposes approval of Addendum Two to the AHIA, which would allow for development of the Affordable Housing sites within Planning Areas 3, 4, 5 and 8 of the Ranch Plan, under two different methods (or a combination thereof). One method is the use of the Private-Sector Alternative, which permits one hundred percent builder financing and provides necessary Project infrastructure at no cost to the County. The second method the County would develop the Affordable Housing sites and use public sector resources. Regardless of the financing method, the Affordable Housing sites will be developed at no less than 25 dwelling units per net acre. The development standards would comply with the *Ranch Plan Planned Community Program Text*

[1] The Orange County Housing Element defines Very Low Income as households earning 50 percent or less of the Area Median Income (AMI) and Low Income as households earning 51 to 80 percent of AMI. A "household" consists of all the people occupying a dwelling unit, whether or not they are related. The U.S. Census Bureau identifies the median household income for Orange County between 2009 and 2013 as $75,422 (County of Orange 2013a; U.S. Census Bureau 2014).

[2] The dedication requirement in the AHIA is based on gross acres; however, it establishes a density that is a minimum of 25 dwelling units per net acre. At this point in time, site plans have not been established for any of the Affordable Housing sites so there is not a way of determining the overall number of net acres associated with the various Affordable Housing parcels. For purposes of this EIR, the analyses assume a minimum of 25 dwelling units per gross acre will be provided. Though the number of net acres will be less than the gross acres associated with each of the Affordable Housing sites, for a Program EIR, this is a reasonable assumption and allows some flexibility should the density per net acre slightly exceed 25 dwelling units per acre. The total number of units would not be substantially different.

which, as the applicable comprehensive zoning program, provides the guidance for conservation, management, and development of the Ranch Plan.

Exhibit 3-1 depicts the location of the potential Affordable Housing sites being addressed in this Program EIR.[3] Addendum Two allows, but does not require, the use of the Private-Sector Alternative; however, with the Private-Sector Alternative, necessary Project infrastructure would be provided at no cost to the County.[4] If public sector resources are used the process would follow the requirements of the original AHIA, which are summarized in below under Project Processing.

To ensure impacts associated with implementing the Project are addressed, this Program EIR addresses three development scenarios and the No Project Alternative at a comparable level of detail. The development scenarios reflect various levels of use of the Private-Sector Alternative, which result in differing numbers of Affordable Housing units built under the Project. As discussed in Section 2.6.2, Affordable Housing Implementation Agreement, if the Private-Sector Alternative is used to develop an Affordable Housing site, RMV would get a Dedicated Lands credit equal to the actual gross acreage of the Affordable Housing site subject to the Irrevocable Offer of Dedication (IOD), multiplied by a factor of two. Thus, if Affordable Housing sites are developed using the Private-Sector Alternative, the overall acreage available for Project development would be less than if the Private-Sector Alternative was not used. The development scenarios reflect a reasonable range of development options on the Dedicated Lands.

As discussed in Section 2.6.2, as a result of utilization of the Private-Sector Alternative and the calculation of the Dedicated Lands credit provided thereunder, the projects in Planning Areas 1 and 2 result in a total Dedicated Lands credit of 15.6 acres. Therefore, the remaining lands required to be dedicated for the development of affordable housing within the Ranch Plan (as required in the Ranch Plan Development Agreement [RPDA] and AHIA) is now 44.4 acres.[5] The proposed Project addresses the development of Affordable Housing on these 44.4 gross acres, under the development options that would be allowed as a result of approval of Addendum Two to the AHIA.

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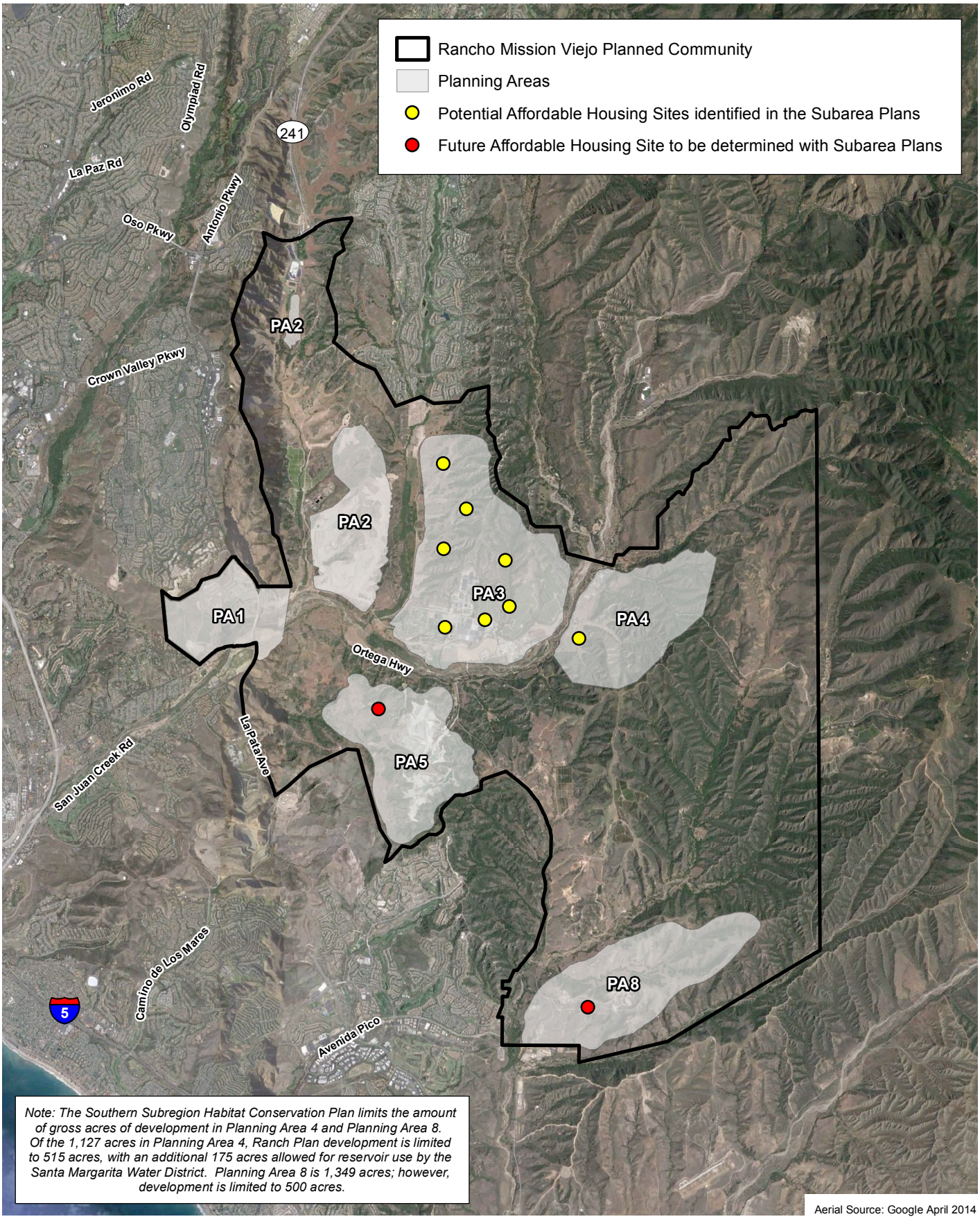
3 The locations in Planning Areas 3 and 4 are based on the approved Subarea Plans. Affordable Housing sites for Planning Areas 5 and 8 have not been identified because the Subarea Plans have not been processed for those two Planning Areas.

4 Addendum Two to the AHIA provides that, in order to confer a further benefit to the County with regard to the provision of Affordable Housing Projects if the Private-Sector Alternative is used, RMV must agree that the County shall have no obligation for Project Mitigation for Planning Areas 3 through 8 except for mitigation that is identified in this Program EIR as being necessary to address a cumulative effect of the Affordable Housing Project(s) to be developed in Planning Areas 3 through 8. The County's obligation for any mitigation in Planning Areas 3 through 8 resulting from cumulative impacts of Affordable Housing will be extinguished if RMV, upon direction from the County, implements said mitigation and receives South County Roadway Improvement Program (SCRIP) credits for same. The granting of SCRIP credits for said mitigation shall not reduce any of RMV's SCRIP obligations that are tied to specific circulation improvements pursuant to the SCRIP Program. The only mitigation measures identified in this Program EIR to address cumulative impacts are associated with construction operations and equipment to reduce construction air emissions. These requirements are not extraordinary measures and would be implemented as part of construction activities.

5 The 44.4 gross acres of affordable housing remaining to be developed are derived by subtracting the 7.8 gross acres of affordable housing already being developed in Planning Areas 1 and 2 and the 7.8 acres of additional credit for the use of the Private-Sector Alternative. The total is equivalent to the 60 gross acres required by the AHIA, as addended.



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Potential Affordable Housing Sites

Exhibit 3-1

Orange County Affordable Housing Implementation Plan Program EIR

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1.5 0.75 0 1.5 Miles

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3.4.1 PROJECT SCENARIOS

As discussed in Section 2.6.2, the AHIA requires RMV to grade the Affordable Housing sites, provide access, and extend utilities to the parcels prior to providing them to the County for development of Affordable Housing. Therefore, impacts associated with site preparation (e.g., mass grading,[6] extension of utilities, and major storm drain facilities) are not caused by the Project. The impacts associated with site preparation have already been addressed in the CEQA documentation prepared for the Ranch Plan. The Project does not require or permit development of areas outside those approved for development as part of the Ranch Plan approvals and the Southern Subregion Habitat Conservation Plan (SSHCP).

The *Ranch Plan Planned Community Program Text*[7] provides a comprehensive zoning program that was developed to provide the guidance for conservation, management, and development of the Ranch Plan. As the zoning document, the *Ranch Plan Planned Community Program Text* provides the regulations and procedures that apply to each of the land use categories. The regulations and standards adopted as part of the *Ranch Plan Planned Community Program Text* would apply to the development of Affordable Housing sites and would include a variety of development standards. The Multiple-Family Dwellings category (Section III.A.3) would be applicable. The site development standards (including but not limited to maximum building height, site coverage, setbacks, landscaping, and parking requirements) are contained in the referenced section.

In order to ensure consistency between the County General Plan and the *Ranch Plan Planned Community Program Text*, the Planned Community (PC) Development Map and PC Statistical Table have been developed and serve as the ultimate tracking mechanism to ensure the development does not exceed the maximum amount approved for the Ranch Plan. The PC Statistical Table for the Ranch Plan is amended as Master Area Plans and Subarea Plans are processed for each of the Planning Areas. However, the units developed under the AHIA are not counted against the 14,000 dwelling unit cap of the Ranch Plan; therefore, they are not reflected on the PC Statistical Table. Specifically, Exhibit D, Section IV, Item No. 44, paragraph 7 of the Development Agreement for the Ranch Plan, referred to as the "Site Set-aside Agreement" and attached to the AHIA as Exhibit 1, states the following in part:[8]

> No Reduction in Approved Dwelling Units/Development Acreage for the Ranch Plan Project; No Effect upon (or Expansion of) OWNERS' Obligations. The approved Ranch Plan Project authorizes OWNERS to develop up to 14,000 dwelling units within an

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6 Though the mass grading will have been completed, there would still be the need to do some minor finish grading on the Affordable Housing site to accommodate the final design. It is estimated that approximately 10,000 cubic yards of cut and fill would be required for each of the Affordable Housing sites. The estimate of 10,000 cubic yards is based on the grading required to do the finish grading (e.g., building foundations, on-site utility trenching, and community pool) that was required for comparable projects in Planning Areas 1 and 2. Grading is assumed to be balanced on site.

7 A copy of the *Ranch Plan Planned Community Program Text* is available for review at OC Planning Offices, located at 300 North Flower Street, Santa Ana, California.

8 The AHIA was entered into between the County of Orange and a certain group of entities collectively defined in the AHIA as "OWNER". For the purposes of this EIR, "RMV" will mean Owner, as defined in the AHIA and the Development Agreement for the Ranch Plan. It should be noted that as part of the Settlement Agreement (discussed in Section 2.6.1), the acreage available for development activities was reduced from approximately 7,683 acres to 5,873 acres. Additionally, based on the Settlement Agreement and the subsequent approval of the SSHCP, the development footprint of the Ranch Plan is restricted to the 5,873 acres; therefore, the Dedicated Lands do reduce the acreage available for Ranch Plan development.

approved Project development area of 7,683 acres (aggregated). These units and development acres are distributed between Planning Areas 1 through 9 in accordance with the Ranch Plan Planned Community Statistical Summary. In no event shall the number of dwelling units approved for the Ranch Plan Project or the individual Planning Areas be reduced to accommodate for, or otherwise offset, the number of affordable housing units/apartments that maybe developed by COUNTY pursuant to the terms of the Land Agreement. Furthermore, in no event shall the 60 gross acres of Dedicated Land identified and conveyed pursuant to the Land Agreement reduce or otherwise count against the 7,683 gross development acres approved for the Ranch Plan Project. Any affordable housing units/apartments developed by COUNTY shall not be counted for purposes of calculating OWNERS' development obligations under any provision of the Development Agreement, the Conditions, or any other entitlement program or document relative to the Ranch Plan Project. Additionally, COUNTY's development of the affordable housing units/apartments shall not expand or otherwise increase OWNERS' mitigation obligations relative to development of the Ranch Plan Project. By way of example only, and not as an exclusive list, development of the affordable housing units/apartments shall not:

- Trigger any milestone performance obligation for OWNERS established pursuant to this Development Agreement *(see. e.g.,* Section I of this Exhibit D concerning SCRIP fee contributions) or any other Project element or program.
- Count toward any unit cap or development threshold established for the Ranch Plan Project.
- Count toward any cumulative impact figures relative to OWNERS' current and/or future obligations for mitigating study area impacts.
- Require OWNERS to contribute additional funding or construct supplemental improvements to mitigate traffic and circulation impacts associated with development of the affordable housing units/apartments.
- Result in the delay, hindrance or revocation of any permit necessary for the development of any element or component of the Ranch Plan Project.

Consistent with the provisions of AHIA Addendum One, Addendum Two also provides that the Affordable Housing sites(s) developed using the Private-Sector Alternative may be eligible for a density bonus and incentives and/or concessions pursuant to Section 65915 (Density Bonus Law) of the *California Government Code*. If requested, the County shall consider such request and grant applicable density bonuses, incentives, and/or concessions consistent with the Density Bonus Law. Any incentives to be provided by the County pursuant to the Density Bonus Law would be at no cost to the County. It is assumed that, even with a density bonus, the total number of affordable units developed would not exceed the 1,110 Affordable Housing units evaluated as part of Scenario 3. Therefore, the environmental effects of the additional density bonus units are within the range evaluated in this Program EIR.[9]

[9] Since the density bonus would apply to Affordable Housing sites developed using the Private-Sector Alternative, there would also be a reduction in the total number of acres of Affordable Housing developed because the acreage credit would be granted for use of the Private-Sector Alternative method of development. Section 65915 of the *California Government Code* provides for varying levels of density bonus depending on whether the units are for low income, very low income, or senior households. However, even with the density bonus, the amount of development would not

Each of the build scenarios assumes that, on average, approximately 25 percent of the Affordable Housing units provided would be age-qualified units (restricted to age 55 years and older) and 75 percent would be family units (all ages).

As discussed above, to evaluate the potential range of units that could be developed with the adoption of Addendum Two to the AHIA, three different implementation scenarios have been evaluated. The distinguishing characteristic between these scenarios is the extent to which the Private-Sector Alternative is utilized rather than Public-Sector Alternative, thus impacting the number of units that could be built.

Scenario 1: Full Private-Sector Scenario

This scenario assumes the Private-Sector Alternative method of development would be implemented for all the Affordable Housing sites in Planning Areas 3, 4, 5, and 8 of the Ranch Plan. Under this scenario, an additional 22.2 gross acres of affordable housing would be provided, netting approximately 555 affordable units (in addition to the 219 affordable units committed to being developed in Planning Areas 1 and 2; see Section 2.6.2 for a discussion of the units in Planning Areas 1 and 2). An additional 22.2-gross-acre credit would be granted for use of the Private-Sector Alternative method of development. The Affordable Housing units would be distributed throughout the remaining Planning Areas slated for development. Since the number of acres to be developed would be reduced, the total number of Affordable Housing sites would be reduced; however, the precise locations of the sites that would be eliminated are not known at this time. Each Affordable Housing site would still be between two and ten acres, as required by the AHIA. The assumed acreage distribution for the units by Planning Area is provided in Table 3-1 later in this section.

Scenario 2: Combined Public- and Private-Sector Scenario

This scenario assumes the Affordable Housing sites would be developed with a combination of the Private Sector Alternative and public-sector resources. In other words, some Affordable Housing sites would be developed using the Private-Sector Alternative and 100 percent builder financing, while others would be developed directly by the County, using County or other public resources. This scenario takes into consideration the flexibility the proposed Addendum Two to AHIA provides based on the level of public-sector funding availability for affordable housing at the time the Affordable Housing sites in each Planning Area are made available to the County (which would generally track when development of the market rate units in the Ranch Plan are being constructed in a given Planning Area). For purposes of the EIR analysis, it is assumed that the Private-Sector Alternative would be used to implement the Project in a third of the remaining acres required for affordable housing (equivalent to 14.8 acres); an additional third (14.8 acres) would be developed using public-sector resources; and the remaining third (14.8 acres) would be the additional credit allowed for use of the Private-Sector Alternative. Under this scenario, an additional 29.6 gross acres of affordable housing would be developed and 14.8 gross acres of additional credit for the Private-Sector Alternative would be granted. This scenario would provide approximately 740 affordable housing units in the Ranch Plan, in addition to the affordable units provided in Planning Areas 1 and 2. The Affordable Housing units would be distributed throughout each of the Planning Areas slated for development. Similar to Scenario 1,

exceed the overall level of development that would have resulted if the Private-Sector Alternative is not applied and no acreage credit had been applied.

as a result of the calculation of Dedicated Lands credit under the Private-Sector Alternative, the total number of Affordable Housing sites would be reduced; however, the precise locations of the sites that would be eliminated are not known at this time. The expected acreage distribution for the units by Planning Area is provided in Table 3-1 later in this section.

Scenario 3: Full Public-Sector Scenario

This scenario assumes the Affordable Housing sites would be developed by the County using public-sector resources. Under this scenario, 44.4 gross acres would be made available for the development of affordable housing, providing approximately 1,110 units in addition to the affordable units provided in Planning Areas 1 and 2. As with the other scenarios, Affordable Housing units would be distributed throughout each of the remaining Planning Areas slated for development (see Table 3-1 later in this section).

No Project Alternative

There are two variations of the No Project Alternative. The first variation would occur if Addendum Two to the AHIA is not approved and describes potential effect that this non-approval would have on the implementation of affordable housing units in Planning Areas 3, 4, 5, and 8. The second variation assumes there would be no development of affordable housing in these planning areas. These variations are discussed below.

No Project/No Addendum Two to the Affordable Housing Implementation Agreement

If Addendum Two to the AHIA is not approved, it would preclude the opportunity to use the Private-Sector Alternative for the development of Affordable Housing units in Planning Areas 3, 4, 5, and 8. This alternative would not preclude the development of the Affordable Housing units in these planning areas; rather, it would mean that sufficient public-sector resources would need to be available in order to develop the Affordable Housing sites. If there are sufficient public-sector resources available for all the Dedicated Lands, the impacts associated with the development would be the same as those identified for Scenario 3, which also assumes full reliance on public-sector resources. With sufficient public-sector resources, approximately 1,110 Affordable Housing units could be constructed in Planning Areas 3, 4, 5, and 8.

If sufficient public-sector resources are not available, there would be the potential for the County to have to return Affordable Housing site(s) to RMV because they are not able to construct the Affordable Housing units within the timeframes required by the AHIA. The AHIA states that the County shall endeavor to distribute Requests for Proposals (RFPs) to candidate affordable housing builders for each housing site within 120 days after the County receives notice from RMV of the availability of the Affordable Housing site. If the RFP process is not completed within 18 months after distribution of the RFP, then RMV's obligation to dedicate the Affordable Housing site shall be deemed to be satisfied, and RMV's aggregate obligation to provide 60 gross acres will be reduced by the amount of acreage of the Affordable Housing site. If this were to occur, there would be a loss of acreage allocated for affordable housing in the Ranch Plan area, thereby reducing the overall number of Affordable Housing units that would be provided. As with the No Project/No Development Alternative discussed below, any property offered for affordable housing pursuant to the AHIA that is returned to RMV could be developed with either

market rate units or non-residential development consistent with the Ranch Plan approvals (still subject to the 14,000 dwelling units and 5.2 million square feet of non-residential uses approved by the Board of Supervisors for the Ranch Plan)..

As discussed in Section 1.10, Areas of Controversy/Issues to be Resolved, since public-sector funding sources are generally allocated on an annual basis, it is uncertain what funding sources would be available in future years. The Project is projected to be implemented over a period of over 10 years. As identified in Section 2.6.2 of this EIR, the AHIA has specified timeframes for implementing the Affordable Housing after the County receives notice from RMV of the availability of the Dedicated Lands. These timeframes are further discussed below under Project Processing. If these timeframes are not met, the land is returned to RMV and the AHIA provides that RMV's obligation with respect to the Affordable Housing site would be deemed satisfied, and that its obligation to provide 60 gross acres would be reduced by the amount of acreage of the returned Affordable Housing site. Therefore, there is a risk, dependent on the public-sector resources available, that the total amount of Dedicated Lands in Planning Areas 3, 4, 5, and 8 that get developed with Affordable Housing could range between 0 acres (if no public-sector resources are available) to 44.4 acres (if sufficient resources are available to develop all the acreage RMV makes available for Affordable Housing sites). This would result in a range of 0 Affordable Housing units to 1,110 Affordable Housing units. Though the total number of units could be less than the range provided by the Project development scenarios discussed above,[10] the nature of the impacts would be similar to those evaluated in this EIR and a separate analysis of this variation of the No Project Alternative is not provided. The impacts would range from those associated the No Project/No Development Alternative (no units) to those associated with Project Scenario 3 (1,110 units).

No Project/No Development of Affordable Housing Units

The No Project/No Development of Affordable Housing Units Alternative assumes that the Project would not be implemented, and that, as a result, no Affordable Housing units would be developed in Planning Areas 3, 4, 5, and 8. The affordable units in Planning Areas 1 and 2 would still be provided. Any additional property offered for affordable housing pursuant to the AHIA would be returned to RMV. This alternative would not preclude the development, by RMV, of the sites designated for Affordable Housing. The sites may be developed with either market rate units or non-residential development consistent with the Ranch Plan approvals (still subject to the 14,000 dwelling units and 5.2 million square feet of non-residential uses approved by the Board of Supervisors for the Ranch Plan). This alternative is carried forward in this EIR to meet the requirements of CEQA of evaluating a No Project Alternative. Henceforth, all reference to the "No Project Alternative" is referencing the No Project/No Development of Affordable Housing Units Alternative.

[10] The total number of units would be less than the 555 Affordable Housing units evaluated for Scenario 1 if the County was not able to secure public-sector resources for more than half of the Affordable Housing sites. Scenario 1, which assumes full reliance on the Private-Sector Alternative would result in half of the required Dedicated Land in Planning Areas 3, 4, 5, and 8 being credited back to RMV in return for use of the Private-Sector Alternative. However, with Scenario 1, there would be no cost to the County for providing infrastructure or other improvements, whereas with the No Project/No Addendum Two to the AHIA Alternative, there would be costs to the County for these improvements.

TABLE 3-1
AFFORDABLE HOUSING GROSS ACREAGE AND UNIT ASSUMPTION BY PLANNING AREA

Planning Area[a]	Scenario 1: Full Private-Sector Scenario				Scenario 2: Combined Public-/ Private-Sector Scenario				Scenario 3: Full Public-Sector Scenario			
	AH Acres	Acres of Credit[b]	Total Acres of Dedicated Land Credit	du Built	AH Acres	Acres of Credit[b]	Total Acres of Dedicated Land Credit	du Built	AH Acres	Acres of Credit[b]	Total Acres of Dedicated Land Credit	du Built
3	13.2	13.2	26.4	330	20.6	14.8	35.4	515	35.4	0.0	35.4	885
4	3.0	3.0	6.0	75	3.0	0.0	3.0	75	3.0	0.0	3.0	75
5	3.0	3.0	6.0	75	3.0	0.0	3.0	75	3.0	0.0	3.0	75
8	3.0	3.0	6.0	75	3.0	0.0	3.0	75	3.0	0.0	3.0	75
Totals	**22.2**	**22.2**	**44.4**	**555**	**29.6**	**14.8**	**44.4**	**740**	**44.4**	**0.0**	**44.4**	**1,110**

AH: Affordable Housing; du: dwelling units; AHIA: Affordable Housing Implementation Agreement; IOD: Irrevocable Offer of Dedication; RMV: Rancho Mission Viejo

[a] These are the only remaining Planning Areas in the Ranch Plan that are approved for development where Affordable Housing units could be constructed. The Affordable Housing in Planning Areas 1 and 2 have been processed separately, and no additional Affordable Housing units would be constructed in those Planning Areas.

[b] The AHIA Addendum provides when the Private-Sector Alternative is applied, with recordation of an IOD, RMV shall receive credit toward their obligation to provide lands for affordable housing at a rate equal to twice the actual acreage subject to the IOD. The additional credit is due to the financial benefits to the County by virtue of having Affordable Housing projects provided (including associated infrastructure) at no cost to the County. This column reflects the number of acres developed using the Private-Sector Alternative, resulting in an equivalent additional credit toward the total number of gross acres required. The column to the left reflects the total acres of dedicated land credit in each planning area (i.e., land constructed with Affordable Housing units and the credit in consideration of units constructed using the Private-Sector Alternative).

3.4.2 SITE DEVELOPMENT PERMITS

As required by the *Ranch Plan Planned Community Program Text*, the Affordable Housing sites would each require a Site Development Permit. The *Ranch Plan Planned Community Program Text* states the purpose of the Site Development Permit is:

> . . . to provide an opportunity for administrative review of detailed plans for all planned concept, attached senior housing, multiple-family projects and non-residential projects within the Ranch Plan PC Program, and to provide an optional method for establishing alternative development standards for residential and non-residential uses as provided by Section 7-9-150 of the Zoning Code. Except as otherwise provided by this Section or when proposing alternative development standards, the Director, OC Planning shall be the approving authority for all Site Development Permit.

The requirements for the Site Development Permits are outlined in Section II, Implementation Procedures of the *Ranch Plan Planned Community Program Text.* The Site Development Permit shall be processed per Zoning Code Section 7-9-150.3(d), as an "Administrative Action", unless certain conditions apply, which are specified in the *Ranch Plan Planned Community Program Text*.

For example, if alternative site development standards are proposed, the site development standards may be modified by the Zoning Administrator in a public hearing.

3.4.3 PROJECT PHASING AND PROCESSING

Project Phasing

The AHIA specifies a process for the implementation of Affordable Housing units, which includes timelines that would provide for phasing of the Affordable Housing sites in conjunction with development of the Ranch Plan. The AHIA identifies that a tentative allocation of Affordable Housing sites will be based upon percentages of the Ranch Plan development, which is measured by calculating total equivalent dwelling units (EDUs).[11] Total EDUs for the Ranch Plan development is monitored by Annual Monitoring Reports (AMR).[12] RMV has committed to providing Affordable Housing sites based on percentage of building permits issued for the Ranch Plan using the milestone EDU percentages, as shown in Table 3-2.

TABLE 3-2
AFFORDABLE HOUSING SITE PHASING
BASED ON PERCENTAGE OF RANCH PLAN DEVELOPMENT

Percentage of Total EDUs with Issued Building Permits	Number of Housing Sites Provided to the County	Total Number of Housing Sites Provided to the County*
25 percent (2,972.5 EDUs)	1–3	1–3
50 percent (5,945 EDUs)	2–3	3–6
75 percent (8,917.5 EDUs)	3–4	6–10
100 percent (11,890 EDUs)	As needed	As needed

EDUs: equivalent dwelling units

* The number of Affordable Housing sites is based on the use of Public-Sector Alternative for all the Affordable Housing units. Therefore, the total number of Affordable Housing sites would be reduced with the use of Private-Sector Alternative.

Source: County of Orange 2006.

Grading of Planning Area 3 (the first of the Planning Areas with Project sites to be developed) is not expected to start until late 2017 or 2018. Therefore, the soonest the Affordable Housing sites

[11] An EDU is a unit of measurement that expresses single-family, multi-family and non-residential development on a common basis. The AHIA states that the EDU method that will be utilized in connection with identifying and providing Affordable Housing sites will be based upon the EDU formula approved by the County for the South County Roadway Improvement Program (SCRIP).

[12] The *Ranch Plan Planned Community Program Text* (General Provision 11) requires RMV to submit AMRs, which are required for conformance with the Growth Management Program of the Land Use Element of the *Orange County General Plan* and the County's Annual Development Monitoring Program. The Board of Supervisors, in the annual adoption of the Development Monitoring Program, may identify a significant imbalance between development projections and planned infrastructure or in the proportionate development of residential, commercial, and employment land uses.

would become available is estimated to be late 2018, and the development of Planning Areas 5 and 8 would be potentially 12 years in the future. A projected phasing concept has been developed that estimates the general timeframe for implementing the affordable housing units. The phasing of the units was developed to support the Water Supply Assessment prepared for the Santa Margarita Water District.[13]

Table 3-3 projects the total number of units in generally five-year increments for each of the scenarios broken out by planning area. The distribution of the units by planning area is based on the number of Affordable Housing sites identified in the Subarea Plans processed for Planning Areas 3 and 4 and the assumption there would be one Affordable Housing site each in Planning Areas 5 and 8 (see Exhibit 3-1). The phasing concept assumes the number of units in each planning area is prorated based on the total number of units proposed for each scenario. However, it should be noted that, in identifying potential Affordable Housing sites, the Subarea Plans assumed the remaining Affordable Housing sites would be developed with public-sector resources (Scenario 3). If Scenario 1 or Scenario 2 is selected, the total number of Affordable Housing sites would reasonably be reduced because fewer total acres of affordable housing would be provided.

TABLE 3-3
AFFORDABLE HOUSING SITE PHASING
(ESTIMATED NUMBER OF UNITS)

Timeframe	Planning Area	Scenario 1[a]	Scenario 2[a]	Scenario 3	No Project Alternative
2016–2020[b]	3	146	194	292	0
2021–2025	3	295	393	593	0
2021–2025	4	38	51	75	0
2026–2030	5	38	51	75	0
2026–2030	8	38	51	75	0
Total Dwelling Units		**555**	**740**	**1,110**	**0**

[a] The implementation of the affordable units would be phased consistent with the phasing concept presented in the AHIA (see Table 3-2, above). The timing of construction of the Affordable Housing units may be delayed if the market rate units are delayed. With Scenarios 1 and 2, the use of Private-Sector Alternative would reduce the overall number of acres provided for affordable housing units. It is expected that the overall number of Affordable Housing sites would be reduced rather than reducing the size of the sites. However, for purposes of this phasing concept, the total number of units in each planning area has been prorated to reflect the total number of units per scenario.

[b] The phasing of the units was developed to support the Water Supply Assessment prepared for the Santa Margarita Water District. The timeframes reflect the time periods for the Urban Water Management Plan. As indicated above, the development in Planning Area 3 is not expected to start until 2018; however, the Urban Water Management Plan addresses the 2016 to 2020 timeframe.

Source: SMWD 2016

Project Processing

Addendum Two to the AHIA would allow the development of the Dedicated Lands to use either the Private-Sector Alternative or public-sector resources. Scenario 2 would employ both

[13] The timeframes reflect the time periods for the Urban Water Management Plan.

development approaches (i.e., some Affordable Housing sites would be developed using the Private-Sector Alternative and some Affordable Housing sites would be developed with public-sector resources). However, the individual Affordable Housing sites would employ only one method (i.e., the individual Affordable Housing site would be developed using only the Private-Sector Alternative or the public-sector resources, not a combination of both). There are minor differences in the steps that would be followed dependent on approach used. For those Affordable Housing sites that are developed using public-sector resources, the following is a general overview of the process outlined in the AHIA.

- Affordable Housing site(s) will be identified as part of Subarea Plans or subsequent Subarea Plan amendments. As part of this process, RMV will provide written notice to the County for the availability of Dedicated Land.
- As soon as reasonably practicable after the written notice, RMV will deliver design guidelines[14] and parcel information, including a title report, a Phase 1 hazardous materials report, the grading base, access information, and points for dry utility hook up.
- The County will endeavor to distribute a Request for Proposal (RFP) to builders within 120 days following the delivery of design guidelines and parcel information.
- The County will negotiate a disposition and development agreement (DDA) with the approved builder that conforms to the Ranch Plan Development Agreement and the AHIA and which conforms to requirements outlined in the design guidelines. The RFP process, including the selection and approval of the builder, is limited to 18 months or the County forfeits Affordable Housing site/acreage.
- Within 30 days of selection of the approved builder, a start-up meeting will be held to discuss coordination, schedules, and delivery of final architectural, improvement, and site plans.
- The County and RMV shall work together to establish builder site controls that satisfy funding source requirements or that use an RMV Irrevocable Offer of Dedication (IOD).[15] If an IOD is used, RMV must deliver an executed IOD for the Affordable Housing site within ten days following Board approval of the DDA and the form of the IOD. Once the IOD is recorded by the County, RMV's obligation under the DDA and AHIA for the Affordable Housing Site is deemed complete and acreage is deducted from 60-acre total. The AHIA indicates establishing the building site controls, and funding may take from 6 to 18 months to complete.

For Affordable Housing sites being developed using the Private-Sector Alternative, the process is slightly modified. For those developments using Private-Sector Alternative, the following steps would apply.

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[14] Providing neighborhood design guidelines is optional and would include (a) a description of the neighborhood design; (b) definitions of general architectural styles; (c) product criteria including information concerning how buildings and improvements should be situated on the Affordable Housing site; and (d) landscape design criteria. The neighborhood design guidelines will not identify a limit on the number of dwellings that may be constructed on the site and may not impose requirements on any Affordable Housing site that are more onerous than those imposed on other sites in the Subarea that will be developed by other builders.

[15] As part of the financing process, the builder will need to demonstrate that they have building site control, meaning that, though they may not have the underlying ownership of the property (such as in cases when there is a ground lease), they have the authorization to construct the improvements.

- Affordable Housing site(s) will be identified as part of Subarea Plans or subsequent Subarea Plan amendments. As part of this process, RMV will provide written notice to the County of the availability of Dedicated Land.
- Concurrent with or after giving the first written notice (identified above) and prior to the County electing to distribute an RFP for builders of the affordable housing, RMV may give a second written notice to the County to contract directly with an Affordable Housing builder. This second written notice will contain a precise description of the Affordable Housing site(s) (including type and income mix) and the development standards (including the minimum density of 25 units per net acre) for the Affordable Housing project(s). Within 30 days of receiving written notice, the County will provide RMV with a letter of consent or denial to use of the Private-Sector Alternative.
- For each Affordable Housing site to be developed using the Private-Sector Alternative, RMV shall enter into a long-term ground lease with the builder. RMV shall provide a copy of the proposed ground lease to the County at least 30 days prior to execution. The County will review the proposed ground lease to confirm that the development standards, including the minimum density of 25 units per net acre, have been incorporated. The ground lease shall provide for its transfer to the County in the event of the County's acceptance of the IOD. RMV shall notify the County upon execution of the ground lease and provide a copy of such ground lease to the County.
- An IOD would be recorded at the time of commencement of construction of the Affordable Housing Project. Prior to or concurrent with recordation of the IOD, RMV shall record a covenant restricting the use of the Affordable Housing Project/Affordable Housing site for low, very-low and extremely-low income households for a period of 55 years.[16] The County's acceptance of the IOD, if at all, would occur no sooner than 15 years and no later than 55 years following recordation of the IOD.

3.4.4 ALTERNATIVE CALIFORNIA ENVIRONMENTAL QUALITY ACT BASELINE

Section 15125 of the State CEQA Guidelines states that "an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published. . . . This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant". However, a lead agency can justify departing from the norm of an existing conditions baseline when necessary to prevent misinforming or misleading the public and decision makers (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* 57 Cal.4th 439 [2013]).

The case law further states that "an existing conditions analysis may take account of environmental conditions that will exist when the project begins operations; the agency is not strictly limited to those prevailing during the period of EIR preparation. An agency may, where appropriate, adjust its existing conditions baseline to account for a major change in environmental conditions that is expected to occur before project implementation. In so adjusting its existing conditions baseline, an agency exercises its discretion on how best to define such a baseline under the circumstance of rapidly changing environmental conditions"

[16] Neither the AHIA nor Addendum Two requires the provision of housing for extremely low income households; however, the Addendum requests that housing to meet this need be explored.

(*Communities for a Better Environment v. South Coast Air Quality Management District,* supra, 48 Cal.4th at p. 328).

Because the Project will be developed within the larger Ranch Plan in accordance with the provisions of the AHIA, the County of Orange has established an alternative baseline that assumes the ongoing implementation of the Ranch Plan as part of the baseline conditions. An evaluation of impacts using an existing conditions baseline would not accurately reflect the true impacts of the Project. This alternative baseline is justified because the provisions of the AHIA require RMV to provide the County of Orange with graded sites; provide access; and extend utilities to the parcels before the development of the Affordable Housing units can commence. The impacts associated with the site preparation are addressed through FEIR 589 and would have CEQA and regulatory permit compliance prior to issuance of a grading permit. The mitigation associated with the site preparation is the responsibility of RMV. The County would not have a project to implement until these activities have been completed because they are required to occur prior to the County accepting the Affordable Housing sites or before the units can be constructed. The impacts associated with the following topics would be overstated if existing (undeveloped) conditions were to be used as the Project baseline:[17]

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Mineral Resources (Planning Area 5, only)

The Ranch Plan Development Agreement and the AHIA further state that the Affordable Housing dwelling units are assumed to be over and above the Ranch Plan's 14,000 dwelling unit cap. To avoid underestimating the circulation impacts, the traffic baseline assumes full buildout of the Ranch Plan so the impact analysis focuses on the incremental impact for the Affordable Housing units, and any required mitigation is developed accordingly.

3.5 INTENDED USES OF THE ENVIRONMENTAL IMPACT REPORT

Pursuant to Section 15121 of the State CEQA Guidelines, an EIR is primarily an informational document intended to inform the public agency decision makers and the general public of the potentially significant environmental effects of a project. Prior to taking action on the Project, the County, as the lead agency, must consider the information in this EIR and certify the Final EIR.

[17] It should be noted that use of the Alternative CEQA Baseline allows all these topical areas except Hydrology/Water Quality to be focused out of this EIR. The issues focused out of the EIR are discussed in the Notice of Preparation/Initial Study (provided in Appendix A) and summarized in Section 2.3.1 of this EIR.

Section 15367 of the State CEQA Guidelines defines Lead Agency as follows:

> "Lead Agency" means the public agency which has the principal responsibility for carrying out or approving a project. The Lead Agency will decide whether an EIR or Negative Declaration will be required for the project and will cause the document to be prepared.

Responsible Agencies are public agencies that have a level of discretionary approval over some component of the Project. Section 15381 of the State CEQA Guidelines defines Responsible Agency as follows:

> "Responsible Agency" means a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project.

Responsible agencies may rely upon the EIR prepared by the Lead Agency (State CEQA Guidelines, Section 15096). Permits and other approvals required to implement the Project are identified below. As noted above, it is intended that this EIR will be used by agencies in their consideration of approval of required subsequent permits and approvals. The following sections provide an overview of the anticipated approvals associated with the Project.

3.5.1 COUNTY OF ORANGE

The County of Orange, as the lead agency, is responsible for discretionary actions as a part of Project approval and implementation. The anticipated approvals, which are listed below, would occur after certification of the Final EIR. As a Program EIR, it is recognized that the Project would be implemented over a period of years. As such, activities subsequent to initial Project approval would be examined in light of the Final EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *Public Resources Code,* Section21166) and Sections 15162 and 15168 of the State CEQA Guidelines (i.e., *California Code of Regulations,* Title 14, Sections 15162 and 15168) for subsequent development approvals. The anticipated discretionary approvals are as follows:

- Approval by the Orange County Board of Supervisors of Addendum Two to the AHIA, which would allow for use of either the Private-Sector Alternative, the public-sector alternative, or a combination thereof, to develop the individual Project sites (Affordable Housing sites).
- Approval by the Deputy Director, OC Public Works, Development Services of Site Development Permits for each individual Project site.

The following non-discretionary (i.e., ministerial) approvals would also be required to implement the Project:

- Grading Permits, if necessary to accommodate finish grade;
- Landscaping Plans;
- Building Permits; and

- Encroachment Permits.

3.5.2 RESPONSIBLE AND TRUSTEE AGENCIES

The Final EIR would also provide environmental information to responsible agencies, trustee agencies, and other public agencies which may be required to grant approvals and permits or coordinate with the County of Orange as a part of Project implementation. These agencies include, but are not limited to, those listed below.

- **Santa Margarita Water District.** Approval of Water Supply Verifications and water and sewer line connections.
- **Regional Water Quality Control Board.** Issuance of a National Pollutant Discharge Elimination System Permit.

3.6 REFERENCES

Communities for a Better Environment v. South Coast Air Quality Management District, supra, 48 Cal.4th (2010)

Neighbors for Smart Rail v. Exposition Metro Line Construction Authority 57 Cal.4th 439 (2013)

Orange, County of. 2016. *Draft Addendum Number Two to the Affordable Housing Implementation Agreement for Rancho Mission Viejo.* Santa Ana, CA: the County.

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———. 2004c (November 8). *Rancho Mission Viejo Development Agreement.* Santa Ana, CA: the County.

U.S. Census Bureau. 2014 (December 4, last revised). State and County QuickFacts (Data derived from Population Estimates, the American Community Survey, Census of Population and Housing, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, and Business Permits). Washington, D.C.: U.S. Census Bureau. http://quickfacts.census.gov/qfd/states/06/06059.html.

4.0 IMPACT ANALYSIS INTRODUCTION

In accordance with Sections 15125 and 15126(a) to (c) of the California Environmental Quality Act (CEQA) Guidelines, this Section of the Program Environmental Impact Report (EIR) analyzes those environmental topics where the Project could result in "potentially significant impacts," or where the Notice of Preparation (NOP)/Initial Study identified more detailed information would be provided in the EIR for informational purposes. Based on the NOP and related Initial Study Environmental Checklist, as well as the comments received by the County on those documents, it was determined the Project may have potential significant environmental impacts for the following topical areas; therefore, they need to be addressed in the Program EIR:

- Air Quality
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Public Services
- Transportation/Traffic

Additionally, while the Initial Study concludes that significant Project impacts are not anticipated, the County intends to provide more detailed information on the following topics in the Program EIR:

- Hydrology and Water Quality
- Population and Housing
- Recreation
- Utilities and Service Services

The Project proposes approval of Addendum Two to the AHIA, which would allow for development of the Affordable Housing sites within Planning Areas 3, 4, 5 and 8 of the Ranch Plan, under two different methods (or a combination thereof). One method is the use of the Private-Sector Alternative, which permits one hundred percent builder financing and provides necessary Project infrastructure at no cost to the County. The second method would rely on public-sector (County, State, and federal) resources.

The environmental impacts of the Project are associated with the varying levels of actual development that would be allowed should Addendum Two to the AHIA be approved. As discussed in Section 3.4, the development scenarios reflect various levels of use of the Private-Sector Alternative, which would result in differing numbers of total Affordable Housing units built within the Ranch Plan. Therefore, the analysis in Section 4.1 through 4.10 is focused on the three Project Scenarios and the No Project/No Development Alternative. Additionally, as discussed in Section 3.4, the No Project/No Addendum Two to the AHIA would not preclude the development of the Affordable Housing units in these Planning Areas 3, 4, 5, and 8. Rather, it would mean that sufficient public-sector resources would need to be available in order to develop the Affordable Housing sites, because resort to Private-Sector Alternative would not be allowable for the Project under the AHIA. Since public-sector funding sources are generally allocated on an annual basis, there is a risk the total amount of Dedicated Lands in Planning Areas 3, 4, 5, and 8 would not all get developed with Affordable Housing. As a result, the number of Affordable Housing units could range between 0 (no public-resources available) and 1,110 (full

build-out of the Dedicated Lands) Affordable Housing units. Though the total number of units could be less than the range provided by the Project scenarios, it is within the range of the scenarios/alternatives evaluated in this EIR (i.e., ranging from the No Project Alternative to Scenario 3). Thus, a separate analysis of the No Project/No Addendum Two to the AHIA is not provided in Sections 4.1 through 4.10. Should this alternative be selected, the impacts would be range from those associated the No Project/No Development Alternative (no units) to those associated with Project Scenario 3 (1,110 units).

Each topical section includes the following information: description of applicable regulations; information on the existing setting; identification of methodology used for the analysis presented in the section; identification of thresholds of significance; analysis of potential Project effects and identification of significant impacts; cumulative impacts; identification of mitigation measures, if required, to reduce the impacts; level of significance after mitigation; and a list of references used to complete the analysis.

As discussed in Section 2.3.1, and the Initial Study (Appendix A), it has been determined that the Project would not result in potentially significant impacts to environmental resource areas concerning aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials; and mineral resources. These issues have been eliminated from further evaluation because either the resource is not present on site (forestry resources) or because RMV is required, under the Development Agreement and the AHIA, to provide the County with graded building pads, and all impacts to these resources that would occur during mass grading of the Affordable Housing sites by RMV have been fully addressed in Final EIR 589 for the Ranch Plan Planned Community.

As discussed in Section 3.4.1, the EIR is evaluating three Project development scenarios and the No Project Alternative at an equal level of detail. Therefore, all three scenarios are evaluated in Sections 4.1 through 4.10, rather than evaluating only one scenario and then providing a comparative analysis in a separate alternatives section of the EIR.

Each of the three Project scenario proposed a different level of private-sector financing; therefore, a different number of Affordable Housing units would be provided. For many of the thresholds, there is substantial commonality between the scenarios. In these instances, to avoid undue repetition, the impact evaluation of Scenarios 1 through 3 are combined under the heading "All Project Development Scenarios". Additionally, there are topics (such as air emissions or traffic volumes) where the analysis is basically the same but the data points are different. In these instances, the analysis is still provided under the heading "All Project Development Scenarios" but the data for each scenario is presented separately, generally in tabular format.

Section 15064.7 of the State CEQA Guidelines addresses thresholds of significance and encourages each public agency to develop thresholds of significance through a public review process. The County of Orange (County) has not formally adopted thresholds of significance. In accordance with CEQA and the CEQA Guidelines, the analysis and significance thresholds used in this EIR have been derived from several sources, including the General Plan, standards identified by agencies with applicable technical expertise, applicable regulatory standards, and the County's Environmental Checklist contained in the Orange County Local CEQA Procedures Manual (which is comparable to Appendix G of the State CEQA Guidelines).

The mitigation program identifies standard conditions and requirements, as well as project specific mitigation measures. By including all of these conditions as part of the mitigation program they would all be tracked in the Mitigation Monitoring and Reporting Program required for the Project. Standard conditions and regulations are based on local, state, or federal regulations or laws that are frequently required independently of CEQA review and also serve to offset or prevent specific impacts. Typical standard conditions and requirements include compliance with the provisions of the Uniform Building Code, South Coast Air Quality Management District Rules, local agency fees, etc. Additionally, any standard conditions of approval routinely applied by the County of Orange have been identified.

4.0.1 CUMULATIVE IMPACT ASSUMPTIONS

Discussion of the cumulative impacts of the proposed Project is provided in Sections 4.1 through 4.10, relative to each CEQA topical issue evaluated herein. The following is an overview and introduction to the cumulative analysis per the State CEQA Guidelines. This avoids the undue repetition of CEQA requirements relative to cumulative analysis within individual sections.

In requiring the State Office of Planning and Research to develop guidelines for the implementation of CEQA, Section 21083(b) of the PRC requires that the guidelines shall specifically include criteria for public agencies to follow in determining whether or not a proposed project may have a "significant effect on the environment." The criteria shall require a finding that a project may have a "significant effect on the environment" if one or more of the following conditions exist:

> (1) A proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantageof long-term, environmental goals.
>
> (2) The possible effects of a project are individually limited but cumulatively considerable. As used in this paragraph, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
>
> (3) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

This directive has been carried forth in Section 15064 of the State CEQA Guidelines, which establishes the criteria for determining the significance of environmental effects caused by a project. Subsection 15064(h)(1) directs the preparation of an EIR in the following circumstance:

> [I]f the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Section 15355 of the State CEQA Guidelines defines cumulative impacts as:

> Two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Pursuant to Section 15130(b) of the State CEQA Guidelines:

> The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

Methodology

A project's cumulative impact is "an impact to which that project contributes and to which other projects contribute as well. The project must make some contribution to the impact; otherwise, it cannot be characterized as a cumulative impact of that project."

Section 15130(b) of the State CEQA Guidelines indicates:

> The following elements are necessary to an adequate discussion of significant cumulative impacts:
>
> (1) Either:
>
> (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
>
> (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

To provide an evaluation of the potential cumulative impacts for the proposed Project, the approach using growth projections (Section 15130(b)(B)) have been used. Specifically, this cumulative analysis considers the growth projected in the Orange County Projections 2014 (OCP-2014) socioeconomic projection. The OCP-2014 projections are countywide growth and development forecasts based on input from the County of Orange and the cities located in the County. These projections reflect adopted land uses and future growth scenarios based on local land use policies and larger demographic conditions. The purpose of establishing countywide projections is to establish a consistent database for jurisdictions to use for planning efforts. The OCP-2014 projections are used in the demographic projections for this EIR to ensure consistency with local and regional planning efforts and anticipated future growth within the region.

To ensure that the adopted socioeconomic data reflects the current conditions in Orange County, the data sets are updated approximately every four to five years. By having an iterative process, the agencies that use this data (the Southern California Association of Governments [SCAG], the County, and local jurisdictions) are able to factor in variables (e.g., changes in employment patterns, economic considerations, and migration patterns) that occur over time.

The OCP-2014 projections provide forecasts that take into account the projected growth of Orange County in its entirety. OCP-2014 projections are particularly useful in evaluating the cumulative impacts associated with traffic, air quality, greenhouse gas (GHG) emissions, and noise because they provide growth assumptions consistent with the local general plans that have been developed with a long-range horizon year. This allows the cumulative analysis to go beyond just a listing of projects, which might not adequately reflect conditions at Project buildout.

The OCP-2014 projections reflect not just local growth, but the anticipated growth for the region. Therefore, these numbers are also integrated into the regional planning programs, such as the Air Quality Management Plan (AQMP), the Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS), and the Regional Growth Management Element. Consistency between local and regional forecasts is imperative because the regional planning programs have been developed to ensure that the region achieves national and State air quality standards. The control strategies that have been identified in these regional planning programs assume the effects of long-range growth. The regional emissions analysis has demonstrated that, even with the projected growth, the region would be consistent with the State Implementation Plan for achieving the National Ambient Air Quality Standards as long as AQMP control measures are implemented.

4.0.2 REFERENCES

Orange, County of. 2014 (October). *County of Orange Local CEQA Procedures Manual.* Santa Ana, CA: the County.

4.1 AIR QUALITY

This section identifies and evaluates the proposed Project's potential to have adverse effects related to air quality during construction and operation of the Orange County Affordable Housing Implementation Program Project (the Project). Information presented in this section includes data from the Project Traffic Study (Stantec), which is included as Appendix E of this EIR. Impacts from greenhouse gas (GHG) emissions are addressed in Section 4.2 of this EIR.

4.1.1 BACKGROUND

Air Pollutants

Criteria Pollutants

Air quality is defined by ambient air concentrations of seven "criteria air pollutants" (CAPs), which are a group of common air pollutants identified by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. Federal and State governments regulate CAPs by using ambient standards based on criteria regarding the health and/or environmental effects of each pollutant. These pollutants include nitrogen dioxide (NO_2); ozone (O_3); particulate matter, including both particles equal to or smaller than 10 microns in size (PM10) and particles equal to or smaller than 2.5 microns in size (PM2.5);[1] carbon monoxide (CO); sulfur dioxide (SO_2); and lead. A description of each CAP, including source types and health effects, is provided below.

Nitrogen Dioxide

Nitrogen gas, normally relatively inert (i.e., nonreactive), comprises about 80 percent of the air. At high temperatures (e.g., in combustion processes) and under certain other conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitrogen oxides (NOx). Nitric oxide (NO), NO_2, and nitrous oxide (N_2O) are important constituents of NOx. NO is converted to NO_2 in the atmosphere. Motor vehicle emissions are the main source of NOx in urban areas.

NO_2 is a red-brown pungent gas and is toxic to various animals and to humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membranes, and skin. In animals, long-term exposure to NOx increases susceptibility to respiratory infections, lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations of NO_2 can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes, and with hospital admissions for respiratory conditions.

While the National Ambient Air Quality Standards (NAAQS) only address NO_2, NO and NO_2 are both precursors in the formation of O_3 and PM2.5, as discussed below. Because of this and the

[1] Particulate matter size refers to the aerodynamic diameter of the particle.

fact that NO emissions largely convert to NO_2, NOx emissions are typically examined when assessing potential air quality impacts.

Ozone

Ozone is a secondary pollutant, meaning that it is not directly emitted. It is a gas that is formed when volatile organic compounds (VOCs) (also referred to as reactive organic gases) and NOx undergo photochemical reactions that occur only in the presence of sunlight. The primary source of VOC emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NOx also forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form; as a result, ozone is known as a summertime air pollutant.[2] Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind, and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when ozone levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level ozone exposure to a variety of problems, including the following:

- lung irritation that can cause inflammation much like a sunburn;
- wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities;
- permanent lung damage to those with repeated exposure to ozone pollution; and
- aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Particulate Matter

Particulate matter includes both aerosols and solid particles of a wide range of size and composition. Of particular concern are PM10 and PM2.5. Particulate matter tends to occur primarily in the form of fugitive dust. This dust appears to be generated by both local sources and by region-wide dust during moderate to high wind episodes. These regional episodes tend to be multi-district and sometimes interstate in scope. The principal sources of dust in urban areas are from grading, construction, disturbed areas of soil, and dust entrained by vehicles on roadways.

PM10 is generally emitted directly as a result of mechanical processes that crush or grind larger particles or from the re-suspension of dusts, most typically through construction activities and vehicular travels. PM10 generally settles out of the atmosphere rapidly and is not readily transported over large distances.

PM2.5 is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants including NOx, sulfur oxides (SOx), and VOCs. PM2.5 can remain

[2] Ground-level O_3 is not to be confused with atmospheric O_3 or the "ozone layer", which occurs very high in the atmosphere and shields the planet from some ultraviolet rays.

suspended in the atmosphere for days and/or weeks and can be transported long distances, as many as several hundred miles.

The principal health effects of airborne particulate matter are on the respiratory system. Short-term exposure (i.e., .lasting several days or weeks) to high PM2.5 and PM10 levels is associated with premature mortality and increased hospital admissions and emergency room visits; increased respiratory symptoms are also associated with short-term exposure to high PM10 levels. Long-term exposure, lasting years to decades, to high PM2.5 levels is associated with premature mortality and development of chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM10 and PM2.5. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

Carbon Monoxide

Carbon monoxide is a colorless and odorless gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches; aggravate cardiovascular disease; and impair central nervous system functions.

CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations are typically found near crowded intersections; along heavily used roadways carrying slow-moving traffic; and at or near ground level. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (i.e., up to 600 feet or 185 meters) of heavily traveled roadways.

Sulfur Dioxide

Sulfur oxides (SOx) constitute a class of compounds of which SO_2 and sulfur trioxide (SO_3) are of greatest importance. Ninety-five percent of pollution-related SOx emissions are in the form of SO_2. SOx emissions are typically examined when assessing potential air quality impacts of SO_2. The primary contributor of SOx emissions is fossil fuel combustion for generating electric power. Industrial processes, such as nonferrous metal smelting, also contribute to SOx emissions. SOx is also formed during combustion of motor fuels; however, most of the sulfur has been removed from fuels, greatly reducing SOx emissions from vehicles.

SO_2 combines easily with water vapor, forming aerosols of sulfurous acid (H_2SO_3), a colorless, mildly corrosive liquid. This liquid may then combine with oxygen in the air, forming the even more irritating and corrosive sulfuric acid (H_2SO_4). Peak levels of SO_2 in the air can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures, lasting years to decades, to high levels of SO_2 gas and particles cause respiratory illness and aggravate existing heart disease. SO_2 reacts with other chemicals in the air to form tiny sulfate particles which are measured as PM2.5.

Lead

Lead is a stable compound, which persists and accumulates both in the environment and in animals. In humans, it affects the body's blood-forming (or hematopoietic), nervous, and renal systems. In addition, lead has been shown to affect the normal functions of the reproductive, endocrine, hepatic, cardiovascular, immunological and gastrointestinal systems, although there is significant individual variability in response to lead exposure. In general, an analysis of lead is limited to projects that emit significant quantities of the pollutant (i.e., lead smelters) and are not applied to residential development projects.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. TACs may be emitted from a variety of common sources, including motor vehicles, gasoline stations, dry cleaners, industrial operations, painting operations, and research and teaching facilities. The USEPA uses the term "hazardous air pollutants" (HAP) for TACs.

TACs are different than the CAPs previously discussed in that ambient air quality standards have not been established for them. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic (i.e., cancer) risk and chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. Diesel particulate matter (diesel PM) is a TAC and is responsible for the majority of California's known cancer risk from outdoor air pollutants.

4.1.2 REGULATORY SETTING

The Project is located in the South Coast Air Basin (SoCAB). The SoCAB is comprised of all of Orange County and parts of San Bernardino, Los Angeles, and Riverside Counties. Air quality in the SoCAB is regulated by the USEPA, the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD). Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although USEPA regulations may not be superseded, both State and local regulations may be more stringent. The Southern California Association of Governments (SCAG) is an important partner to the SCAQMD and produces estimates of anticipated future growth and vehicular travel in the basin that are used for air quality planning. The federal, State, regional, and local regulations for CAPs and TACs are discussed below.

Federal

The Federal Clean Air Act (CAA) requires the adoption of NAAQS, which are periodically updated to protect the public health and welfare from the effects of air pollution. The USEPA is responsible for setting and enforcing the NAAQS for criteria pollutants. Primary standards set limits to protect public health, including the health of at-risk populations such as people with pre-existing heart or lung disease (such as asthmatics), children, and older adults. Secondary standards set limits to protect public welfare, including protection against visibility impairment

as well as damage to animals, crops, vegetation, and buildings. Current federal standards are set for SO_2, CO, NO_2, 0_3, PM10, PM2.5, and lead. NAAQS are shown in Table 4.1-1.

The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives.

Specific geographic areas are classified as either "attainment" or "nonattainment" areas for each pollutant based upon the comparison of measured data with the NAAQS. "Attainment" areas have concentrations of a criteria pollutant that are below the NAAQS, and a "nonattainment" classification indicates the criteria pollutant concentrations have exceeded the NAAQS. When an area has been reclassified from a nonattainment to an attainment area for a federal standard, the status is identified as "maintenance", and there must be a plan and measures that will keep the region in attainment for the following ten years. Areas designated as "nonattainment" are required to prepare regional air quality plans, which set forth a strategy for bringing an area into compliance with the standards. These regional air quality plans, which are developed to meet federal requirements, are included in an overall program referred to as the State Implementation Plan (SIP).

TABLE 4.1-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California [a] Standards	Federal Standards	
			Primary [b]	Secondary [c]
O_3	1 Hour	0.09 ppm (180 µg/m³)	–	–
	8 Hour	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)	Same as Primary
PM10	24 Hour	50 µg/m³	150 µg/m³	Same as Primary
	AAM	20 µg/m³	–	–
PM2.5	24 Hour	–	35 µg/m³	Same as Primary
	AAM	12 µg/m³	12.0 µg/m³	15.0 µg/m³
CO	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	–
	8 Hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	–
NO_2	AAM	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	–
SO_2	24 Hour	0.04 ppm (105 µg/m³)	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m³)
	1 Hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	–
Lead	30-day Avg.	1.5 µg/m³	–	–
	Calendar Quarter	–	1.5 µg/m³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m³	

TABLE 4.1-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California [a] Standards	Federal Standards	
			Primary [b]	Secondary [c]
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

O_3: ozone, ppm: parts per million, µg/m^3: micrograms per cubic meter, –: No Standard; PM10: respirable particulate matter with a diameter of 10 microns or less, AAM: Annual Arithmetic Mean, PM2.5: fine particulate matter with a diameter of 2.5 microns or less, CO: carbon monoxide, mg/m^3: milligrams per cubic meter, NO_2: nitrogen dioxide, SO_2: sulfur dioxide, km: kilometer.

[a] *California Air Quality Standards:* California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b] *National Primary Standards:* The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[c] *National Secondary Standards:* The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).

Source: CARB 2015a.

State

CARB also has established the California Ambient Air Quality Standards (CAAQS) shown in Table 4.1-1, which are generally more restrictive than the NAAQS. CARB conducts research; compiles emissions inventories; develops suggested control measures; provides oversight of local programs; and prepares the SIP. For regions that do not attain the CAAQS, CARB requires the air districts to prepare plans for attaining the standards. CARB establishes emissions standards for motor vehicles sold in California, consumer products (e.g., hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Mobile Source Reductions

Assembly Bill (AB) 1493 ("the Pavley Standard" or "AB 1493") required CARB to adopt regulations by January 1, 2005, to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks of model year 2009 through 2016. While AB 1493 focuses on the reduction of GHG emissions, this regulation contributes to the reduction of some CAPs.

CARB's approach to passenger vehicles (cars and light trucks), under AB 1493, combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of

standards. This approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California.

Advanced Clean Cars

In January 2012, CARB approved the Advanced Clean Cars (ACC) program, an emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, 2025 model year automobiles will emit 75 percent fewer smog-forming emissions and 34 percent fewer global warming gases than the average 2012 model year automobile (CARB 2015b).

Title 24 Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the *California Code of Regulations* [CCR]) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The current applicable standards are the 2013 Standards, effective July 1, 2014. The 2016 Code was published on July 1, 2016, and will go into effect on January 1, 2017 (CBSC 2016). The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Since using natural gas produces criteria pollutant emissions, a reduction in natural gas consumption results in a related reduction in air quality emissions.[3] Additional discussion of the Title 24 energy efficiency standards is included in Section 4.2, Greenhouse Gas Emissions.

Title 24 Green Building Standards

The 2013 California Green Building Standards Code (24 CCR, Part 11), also known as the "CALGreen Code", contains mandatory and voluntary requirements for new residential and nonresidential buildings (including buildings for retail uses, office uses, public schools, and hospitals) throughout California (CBSC 2014). Development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the CALGreen Code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy-efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles which, in turn, reduces pollutant emissions. Additional discussion of the CALGreen Code is included in Section 4.2, Greenhouse Gas Emissions.

[3] Because electricity is not generated on site, the emissions associated with electricity generation are not included in the emissions calculations.

Beyond the mandatory standards, the CALGreen Code specifies voluntary measures for energy and water efficiency, material conservation, and other design features. The levels of participation are classified as Tier 1 and Tier 2. An example of Tier 1 requirements is 15 percent less energy use in residential construction than required by existing regulations. Tier 2 requires 30 percent less energy use in residential construction.

Regional

South Coast Air Quality Management District and Southern California Association of Governments

In the SoCAB, the SCAQMD is the agency responsible for protecting public health and welfare through the administration of federal and State air quality laws, regulations, and policies. Included in the SCAQMD's tasks are the monitoring of air pollution; the preparation of the Air Quality Management Plan (AQMP) for the SoCAB; and the promulgation of rules and regulations.

In the Project area, SCAG is the federally designated Metropolitan Planning Organization and the State-designated transportation planning agency for six counties: Riverside, San Bernardino, Los Angeles, Ventura, Imperial, and Orange.

The SCAQMD and SCAG are jointly responsible for formulating and implementing the AQMP for the SoCAB. SCAG's Regional Mobility Plan and Growth Management Plan form the basis for the land use and transportation control portion of the AQMP.

Air Quality Management Plans

The current regional plan applicable to the Project is the SCAQMD's 2012 AQMP. However, the CARB and the USEPA also consider elements of the 2007 AQMP in review of the Statewide 2007 SIP. An AQMP establishes a program of rules and regulations directed at attaining the NAAQS and CAAQS. The AQMP control measures and related emission reduction estimates are based on emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by compliance with local land use plans and/or population projections.

The AQMP and SIP processes generally occur concurrently: the SIP is required under the CAA to provide the framework for non-attainment areas to come into attainment, and the AQMP is prepared by the SCAQMD, in part, to satisfy the requirement for a SIP. The AQMP traditionally evaluates all nonattainment and maintenance criteria pollutants; portions of the AQMP represent the required SIP elements, which are then transmitted to the CARB for review and approval before being transmitted to the USEPA for inclusion in the overall California SIP.

The Orange County portion of the SoCAB is currently designated as a nonattainment area for the federal and State O_3 standards; the State PM10 standards; and the federal and State PM2.5 standards.[4] The current status of the SIPs for these nonattainment pollutants are shown below:

- The 2007 AQMP provides attainment demonstrations for the annual PM2.5 standard by April 5, 2015, and the 8-hour O_3 standard by December 31, 2023. In 2009 and 2011, respectively, at the request of the USEPA, CARB provided clarifying revisions to the annual PM2.5 and 8-hour O_3 SIP amendments. In 2011, the USEPA approved the control strategy, emission reduction commitment, and attainment demonstration for the annual PM2.5 standard by April 5, 2015. In 2012, the USEPA approved the control strategy, emission reduction commitment, and attainment demonstration for the annual 8-hour O_3 standard by June 15, 2024.
- The 2012 AQMP provides attainment demonstrations for the 24-hour PM2.5 standard by 2019 and the 1-hour O_3 standard by 2023. In addition, it provides supplemental information for the approved 8-hour O_3 SIP (SCAQMD 2013a). On January 25, 2013, CARB approved the 2012 AQMP, which was subsequently submitted to the USEPA. To date, the 2012 AQMP has not been formally approved by the USEPA. However, the SCAQMD still considers the 2012 AQMP to be the current and approved AQMP.
- The SCAQMD is currently developing the 2016 AQMP. The population projections for this plan include the proposed Project. Adoption by the SCAQMD Governing Board is scheduled for December 2016. The 2016 AQMP will develop integrated strategies and measures to meet the following NAAQS (SCAQMD 2015a):
    - 8-hour O_3 (75 parts per billion [ppb]) by 2032[5]
    - Annual PM2.5 (12 micrograms per cubic meter [$\mu g/m^3$]) by 2021–2025
    - 8-hour O_3 (80 ppb) by 2024 (updated from the 2007 and 2012 AQMPs)
    - 1-hour O_3 (120 ppb) by 2023 (updated from the 2012 AQMP)
    - 24-hour PM2.5 (35 $\mu g/m^3$) by 2019 (updated from the 2012 AQMP)

South Coast Air Quality Management District Rules

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust and criteria pollutant emissions. The rules described below are most relevant to the proposed Project.

SCAQMD Rule 201 requires a "Permit to Construct" prior to the installation of any equipment "the use of which may cause the issuance of air contaminants . . ." and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate. Rule 219, Equipment not Requiring a Written Permit Pursuant to Regulation II, identifies "equipment, processes, or operations that emit small amounts of contaminants that shall not require written permits . . .".

[4] The Los Angeles County portion of the SoCAB is a nonattainment area for Lead.

[5] On October 1, 2015, the USEPA lowered the 8-hour O_3 standard to 0.070 ppm (70 ppb). The SIP (or AQMP) for the 70 ppb standard will be due 4 years after the attainment/non-attainment designations are issued by the USEPA, which is expected next year in 2017. Thus, meeting the 70 ppb standard will be addressed in a 2021 AQMP.

SCAQMD Rule 402, Nuisance, states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property".

SCAQMD Rule 403, Fugitive Dust, requires actions to prevent, reduce, or mitigate fugitive particulate matter emissions. These actions include applying water or chemical stabilizers to disturbed soils; managing haul road dust by applying water; covering all haul vehicles before transporting materials; restricting vehicle speeds on unpaved roads to 15 miles per hour (mph); and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, Rule 403 requires that vegetative ground cover be established on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph.

SCAQMD Rule 445 has been adopted to reduce the emissions of particulate matter from wood-burning devices, and prohibits the installation of such devices in any new development.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the VOC content in paints and paint solvents. Although this rule does not directly apply to the Project, it does dictate the VOC content of paints available for use during building construction.

Local

County of Orange

The Resources Element, one of nine elements of the County's General Plan, contains official County policies on the conservation and management of resources (County of Orange 2005). One component of the Resources Element is Air Resources. The policy of the Air Resources Component is "To develop and support programs which improve air quality or reduce air pollutant emissions". The Air Resources Component includes 15 implementation programs. The responsibility for implementation is designated to the County, the Orange County Transportation Authority, and other public agencies. The implementation programs are not directly applicable to the proposed Project.

4.1.3 METHODOLOGY

California Emission Estimator Model

Proposed Project emissions were calculated by using California Emissions Estimator Model (CalEEMod) version 2013.2.2 (SCAQMD 2013b). CalEEMod is a computer program accepted by the SCAQMD that can be used to estimate criteria pollutant and GHG emissions associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts. The Orange County database was used for the Project. The model calculates emissions of CO, SO_2, PM10, PM2.5, and the O_3 precursors VOC and NOx. For this analysis, the

results are expressed in pounds per day (lbs/day) and are compared with the SCAQMD mass daily thresholds described in Section 4.1.5 to determine impact significance.

Specific inputs to CalEEMod include land uses and acreages. Construction input data include but are not limited to (1) the anticipated start and finish dates of each project construction activity (e.g., grading, building, and paving); (2) inventories of construction equipment to be used during each Project activity; (3) areas to be graded for development; (4) volumes of materials to be imported to and exported from the Project site; (5) areas to be paved; and (6) areas to be painted. The input data and assumptions are discussed in Section 4.1.6 below and are shown in notes on the CalEEMod data in Appendix B. The CalEEMod model has the capability to calculate reductions in construction emissions from the effects of dust control, off-road diesel-engine classifications, low-emission paints, and other selected measures. CalEEMod was developed using EMFAC 2011 and OFFROAD 2011 for calculating emissions from on-road vehicles and off-road construction equipment, respectively.

Operational inputs to CalEEMod include (1) the specific year for Project operations; (2) vehicle trip generation rates; (3) land use and location characteristics that contribute to reductions in vehicle miles traveled; and (4) Project criteria for energy use. Output operational emissions data are separated into energy use, area sources, and mobile sources. The area sources are landscape maintenance equipment, consumer products, and architectural coatings used for routine maintenance. Consumer products (e.g., household cleaners, air fresheners, automotive products, and personal care products) emit VOCs. Mobile sources are the vehicles used by employees, visitors, and vendors at the Project site. The CalEEMod model also includes data to calculate emissions reductions based on Project-specific characteristics and resulting from the implementation of mitigation measures (MMs). The methodology for most emissions reductions is based on the California Air Pollution Control Officers Association's (CAPCOA's) 2010 publication entitled *Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures* (CAPCOA 2010).

Local Concentrations of Criteria Pollutants from On-Site Sources

As part of the SCAQMD's environmental justice program, attention has focused on localized effects of air quality and the exposure of persons to criteria pollutants generated on a project site. The SCAQMD developed localized significance threshold (LST) methodology and mass rate look-up tables that public agencies can use to determine whether or not a project may generate significant adverse localized air quality impacts. In addition to the mass daily emissions for regional thresholds, the SCAQMD established CEQA significance thresholds for ambient air quality to address localized impacts. The localized impact analysis is based on the concentration of a pollutant at a receptor site. The concentration standard is either the same as the NAAQS or CAAQS or is based upon a health-based standard. It is possible for a pollutant to have a significant impact regionally and a less than significant impact locally or vice versa. It is also possible for both impacts (i.e., regional and local) to be significant or less than significant. The look-up tables allow the evaluation of impacts without the complex task of dispersion modeling.

The analysis is not performed for operations because there would be no substantial on-site stationary sources of criteria pollutants with the proposed Project. The LST methodology translates the concentration standards into emissions thresholds. The LST methodology is generally recommended to be limited to projects of five acres or less. For projects that exceed

five acres, such as the proposed Project, the five-acre LST look-up values can be used as a screening tool to determine which pollutants require detailed analysis (MacMillan 2011). If a project exceeds the LST look-up values, then the SCAQMD recommends that project-specific localized air quality modeling be performed. The impact analysis, in 4.1.6, Impact Analysis, demonstrates the ability of the Project to meet the five-acre site emissions limit provided for the LST methodology.

The LST methodology addresses NO_2, CO, PM10, and PM2.5 emissions. SO_2 and lead are not included because these pollutants are generated in very small amounts in development projects. Ozone is not included because it is a secondary pollutant and local concentrations cannot be estimated from precursor emissions. For NO_2 and CO, the one-hour standards are used and receptors that could be exposed for one hour are considered. For PM10 and PM2.5, the 24-hour standards are used and the receptors of interest are those where persons could be exposed for 24 hours (e.g., residences). Because emissions are based on the AAQS, exceedance of the LST represents a potential health impact. As noted above, the potential impact can be confirmed or found to be less than significant by a more detailed analysis.

Carbon Monoxide Hotspots

Local area CO concentrations for roadways were evaluated using screening level criteria. An initial screening procedure is provided in the *Transportation Project-Level Carbon Monoxide Protocol* (CO Protocol) to determine whether a project poses the potential to generate a CO hotspot (UCD ITS 1997). A hot-spot analysis is defined as an estimation of likely future localized pollutant concentrations and a comparison of those concentrations to the relevant NAAQS. According to the CO Protocol, projects might increase CO concentrations if they (1) increase the percentage of vehicles in cold start mode by two percent or more; (2) increase traffic volumes by five percent or more over existing volumes; or (3) make traffic flow worse, which is defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F, or causing an intersection that would operate at LOS D or better without a project to operate at LOS E or F with a project. If conditions (1) or (2) occur, intersection operations are examined. If condition (3) indicates that a project poses a potential for a CO hotspot, a quantitative screening is required. Various air quality agencies in California, but not the SCAQMD, have developed conservative screening methods. The screening methods of the Sacramento Metropolitan Air Quality Management District (SMAQMD) are used because background CO levels in the Project area are less than in the metropolitan Sacramento area, which means that the allowable increase in CO due to Project sources (i.e., the standard minus background) based on Sacramento data is less than what would be allowed based on Orange County conditions (SMAQMD 2009). Therefore, this is a conservative evaluation.

4.1.4 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

Climate and Meteorology

The Project is located in the SoCAB, which includes all of Orange County and the urbanized portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is arid, with virtually no rainfall and abundant sunshine during the summer months. It has light winds and poor vertical mixing compared to the other large urban areas in the U.S. The combination of poor dispersion and abundant sunshine, which drives the photochemical reactions that form

pollutants (such as O_3) provide conditions especially favorable to the formation of smog. The SoCAB is bound to the north and east by mountains with maximum elevations exceeding 10,000 feet. The unfavorable combination of meteorology, topography, and emissions from the nation's second largest urban area results in the SoCAB having some of the worst air quality in the U.S.

Sensitive Air Quality Receptors

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. These people include children, elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. The SCAQMD defines structures that house these persons or places where they gather (i.e., residences, schools, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields) as "sensitive receptors".

Planning Areas 3, 4, 5, and 8 are undeveloped. Currently, there are no sensitive receptors within approximately $^1/_3$ to ½ mile of any potential Affordable Housing site. However, as the Project is being developed, there will be other residential housing being developed within the same Planning Areas as the proposed Affordable Housing sites, which will be in closer proximity to the proposed sites.

Existing Air Quality

Regional Attainment Status

As previously discussed, based on monitored air pollutant concentrations, the USEPA and the CARB designate an area's status in attaining the NAAQS and CAAQS, respectively, for criteria pollutants. Table 4.1-2 summarizes the attainment status in the SoCAB for criteria pollutants.

TABLE 4.1-2
ATTAINMENT STATUS OF CRITERIA POLLUTANTS
IN THE SOUTH COAST AIR BASIN

Pollutant	State	Federal
O_3 (1 hour)	Nonattainment	No standard
O_3 (8 hour)		Extreme Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Moderate Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment*
All others	Attainment/Unclassified	No Standards

O_3: ozone; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide.

* The Los Angeles County portion of the SoCAB is designated nonattainment for lead; the remainder of the SoCAB is designated attainment.

Source: CARB 2016, 2014; USEPA 2015.

Local Air Quality

The SCAQMD has divided the SoCAB into 38 source receptor areas (SRAs) for categorization of pollutant concentrations. Pollutants are monitored in most, but not all of the SRAs. The Project site is in SRA 19, Saddleback Valley, and the area is represented by measurements made at the Mission Viejo Monitoring Station located on 26081 Via Pera in Mission Viejo, which is located approximately six miles west of the Project site. The pollutants measured at the Mission Viejo Station include O_3, CO, PM2.5, and PM10. The monitored air quality data from 2012 to 2014, and a comparison to the NAAQS and CAAQS from the Mission Viejo Monitoring Station are presented in Table 4.1-3. As shown, the national and State standards were exceeded in all three years for O_3 (eight hour), and State standards were exceeded in all three years for O_3 (one hour).

TABLE 4.1-3
AIR POLLUTANT LEVELS MEASURED AT THE MISSION VIEJO MONITORING STATION

Station	Pollutant	California Standard	National Standard	Year	Max. Level[a]	Days State Standard Exceeded[b]	Days National Standard Exceeded[b, c]
Mission Viejo Station	O_3 (1 hour)	0.09 ppm	None	2012	0.096	2	–
				2013	0.104	2	–
				2014	0.115	4	–
	O_3 (8 hour)	0.070 ppm	0.075 ppm	2012	0.079	6	1
				2013	0.082	5	2
				2014	0.088	10	5
	PM10 (24 hour)	50 µg/m³	150 µg/m³	2012	36.0	0	0
				2013	50.0	0	0
				2014	40.0	0	0
	PM10 (AAM)	20 µg/m³	None	2012	17.0	*	–
				2014	19.0	*	–
				2013	19.8	*	–
	NO_2 (1 Hour)	0.18 ppm	0.100 ppm	2012	*	*	*
				2013	*	*	*
				2014	*	*	*
	NO_2 (AAM)	0.030 ppm	0.053 ppm	2012	*	*	*
				2013	*	*	*
				2014	*	*	*
	CO (8 hour)	9.0 ppm	9.0 ppm	2012	0.79	0	0
				2013	*	0	0
				2014	*	0	0
	PM2.5 (24 Hour)	None	35 µg/m³	2012	27.6	–	0
				2013	28.0	–	0
				2014	25.5	–	0

TABLE 4.1-3
AIR POLLUTANT LEVELS MEASURED AT THE MISSION VIEJO MONITORING STATION

Station	Pollutant	California Standard	National Standard	Year	Max. Level[a]	Days State Standard Exceeded[b]	Days National Standard Exceeded[b, c]
	PM2.5 (AAM)	12 µg/m^3	12 µg/m^3	2012	7.9	No	No
				2013	8.1	No	No
				2014	8.0	No	No

O_3: ozone; ppm: parts per million; -: indicates that there is no applicable standard; PM10: respirable particulate matter with a diameter of 10 microns or less; µg/m^3: micrograms per cubic meter; *: Data Not Reported or insufficient data available to determine the value; AAM: Annual Arithmetic Mean; NO_2: nitrogen dioxide; CO: carbon monoxide; PM2.5: fine particulate matter with a diameter of 2.5 microns or less.

[a] California maximum pollutant level on one day throughout the year were used.

[b] For annual averaging times, a "yes" or "no" response is given if the annual average concentration exceeded the applicable standard.

[c] PM is measured once every 6 days.

Source: CARB 2016b,

Carcinogenic Risks

Carcinogenic risks (i.e., cancer risks) are estimated as the incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a probability (e.g., 10 in a 1 million). A risk level of 1 in a 1 million implies a likelihood that up to 1 person out of 1 million equally exposed people would contract cancer if exposed continuously to a specific concentration 24 hours per day for 70 years (an assumed lifetime exposure). This would be in addition to those cancer cases that would normally occur in an unexposed population of one million people. The Hazard Index (HI) expresses the potential for chemicals to result in non-cancer-related health impacts and are expressed using decimal notation (e.g., 0.001). A calculated HI exposure less than 1.0 will likely not result in adverse non-cancer-related health effects over a lifetime of exposure. However, an HI greater than 1.0 does not necessarily mean that adverse effects will occur.

The Multiple Air Toxics Exposure Study IV (MATES IV) is a monitoring and evaluation study conducted in the SoCAB and is part of the SCAQMD Governing Board's Environmental Justice Initiative (SCAQMD 2015b). The study focuses on the carcinogenic risk from exposure to air toxics. It does not estimate mortality or other adverse health effects from particulate exposures. The MATES IV study uses 2012 monitored data to model risk throughout the SoCAB. Risk is shown in 2-kilometer (km) by 2-km squares, and there are29 squares that cover the Project area. The modeled carcinogenic risk for all 29 squares ranges from 300.95 to 357.35 per million (SCAQMD 2015c). These risk data may be compared to the calculated SoCAB population-weighted risk of 367 per 1 million persons (SCAQMD 2015a). The MATES IV SoCAB population-weighted risk is about 57 percent lower than the MATES III risk calculated from 2005 data. These MATES IV and MATES III data were calculated using methods and guidelines established by the State Office of Environmental Health and Hazards Assessment (OEHHA) in 2003.

In March 2015, subsequent to the preparation of the MATES IV report, the OEHHA adopted new methods and guidelines for calculation of cancer risk (OEHHA 2015). The new guidelines

recognize increased risks to infants and children; revised assumptions for breathing rates of different age groups; and revised exposure periods for various age groups and receptor types. The new methods result in substantially greater estimated cancer risks than previously calculated. The SoCAB population-weighted risk, calculated with the new guidelines, is 897 per million. However, it should be noted that some of the risk increase resulting from the new methods may be offset by new (EMFAC 2014) heavy duty diesel truck particulate emissions factors that are approximately a factor of ten lower than the corresponding EMFAC 2011 emissions factors that were used for the MATES IV calculations.

Existing Emissions

The Project would be implemented on graded but undeveloped land. Therefore, there are no existing sources of emissions on the Project sites.

4.1.5 THRESHOLDS OF SIGNIFICANCE

The Initial Study (provided in Appendix A) for the proposed Project concludes that additional analysis of the following thresholds of significance is required in this EIR. In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to air quality if it would:

Threshold 4.1-1 Conflict with or obstruct implementation of the applicable Air Quality Plan.

Threshold 4.1-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Threshold 4.1-3 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State Ambient Air Quality Standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Threshold 4.1-4 Expose sensitive receptors to substantial pollutant concentrations.

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management district may be relied upon to make significance determinations. The SCAQMD has established significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions; Table 4.1-4 presents the most current significance thresholds applicable to the proposed Project. A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant effect on air quality.

As discussed in Section 2.3.1, Issues to be Addressed in the Environmental Impact Report, the threshold pertaining to odors was focused out of the EIR at the time the Notice of Preparation was issued because the Project does not propose any land uses that are identified by the SCAQMD as a major odor source.

TABLE 4.1-4
SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds (lbs/day)		
Pollutant	**Construction**	**Operation**
VOC	75	55
NOx	100	55
CO	550	550
PM10	150	150
PM2.5	55	55
SOx	150	150
Lead	3	3
Toxic Air Contaminants		
TACs[a]	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO_2e for industrial facilities	
Ambient Air Quality For Criteria Pollutants[b]		
NO_2	1-hour average ≥ 0.18 ppm Annual average ≥ 0.03 ppm	
CO	1-hour average ≥ 20.0 ppm (State) 8-hour average ≥ 9.0 ppm (State/federal)	
PM10	24-hour average ≥ 10.4 µg/m^3 (construction) 24-hour average ≥ 2.5 µg/m^3 (operation) Annual average ≥ 1.0 µg/m^3	
PM2.5	24-hour average ≥ 10.4 µg/m^3 (construction) 24-hour average ≥ 2.5 µg/m^3 (operation)	
Sulfate	24-hour average ≥ 1.0 µg/m^3	
Lead 30-day average Rolling 3-month average	1.5 µg/m^3 (state) 0.15 µg/m^3 (federal)	

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SOx: sulfur oxides; TACs: toxic air contaminants; GHG: greenhouse gas emissions; MT/yr: millon tons per year; CO_2e: carbon dioxide equivalent; NO_2: nitrogen dioxide; ppm: parts per million; µg/m^3: micrograms per cubic meter

[a] TACs (carcinogenic and noncarcinogenic)

[b] Ambient air quality threshold based on SCAQMD Rule 403.

Source: SCAQMD 2015d

4.1.6 IMPACT ANALYSIS

Threshold 4.1-1

Would the Project conflict with or obstruct implementation of the applicable air quality plan?

All Project Development Scenarios

Consistency with an AQMP requires that a project be consistent with the approved AQMP for the region that provides controls sufficient to attain the national standards by the required attainment date. The AQMP is based on growth projections agreed to in the five affected counties and SCAG as a whole. If the total population accommodated by a new project, together with the existing population and the projected population from all other planned projects in the subarea, does not exceed the growth projections for that subarea incorporated in the most recently adopted AQMP, the completed project is consistent with the AQMP. The entire County of Orange is considered to be one subarea. The AQMP is region-wide and accounts for cumulative increases in emissions that are the result of anticipated growth throughout the region. While the Affordable Housing growth projections were not included in the 2012 AQMP, the growth projections were included in the Orange County Projections (OCP) 2014 (see section 4.6 Population and Housing for a discussion of the OCP-2014 dataset).[6] The OCP-2014 dataset has been incorporated into the 2016 AQMP, which is anticipated to be approved in the Fall of 2016. The SCAQMD does not make land use policy, rather they develop air quality strategies to accommodate the existing land use plan. This is accomplished by ensuring the 2016 AQMP is consistent with the development assumptions in the 2016-2040 RTP/SCS. Since the RTP/SCS incorporates the growth in the OCP-2014 dataset and the development associated with the Project has been incorporated into the OCP-2014 dataset, the growth associated with the Project is more accurately reflected and has been provided for in the air quality strategies in the 2016 AQMP. Since Project implementation is not expected to start until approximately 2018, the 2016 AQMP would be the applicable air quality plan. As such, implementation of the Project Development Scenarios would not exceed growth projections for the subarea. Therefore, the Project is considered consistent with the AQMP.

Impact Conclusion: *The Project Development Scenarios would be consistent with the SCAQMD 2016 AQMP, which will be the applicable air quality plan at the time construction of Affordable Housing units is initiated. Therefore, pursuant to Threshold 4.1-1, there would be no conflict or obstruction of the implementation of the SCAQMD 2016 AQMP. There would be no impacts associated with applicable air quality plans and no mitigation is required.*

[6] The Orange County Council of Governments approves growth projections for population, housing, and employment data, which addresses both short-term and long-term anticipated growth in Orange County. The dataset, known as the Orange County Projections, are used in the regional planning programs to ensure consistency between local and regional planning programs. OCP-2014 is the most current dataset and has been incorporated into Southern California Association of Governments' (SCAG's) *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* and the proposed *2016 Air Quality Management Plan*.

No Project Alternative

The No Project Alternative assumes that no additional Affordable Housing units would be provided in the Ranch Plan Planned Community (the Ranch Plan) and that the property offered pursuant to the Ranch Plan Affordable Housing Implementation Agreement (AHIA) would be returned to Rancho Mission Viejo; however, no additional development beyond the approvals provided in the Ranch Plan would be allowed. Therefore, it is assumed there would be no new construction emissions and no increase in operation emissions. There would be no increase in population or additional growth under the No Project Alternative. As such, the No Project Alternative would not conflict with the SCAQMD 2016 AQMP.

Impact Conclusion: *The No Project Alternative proposes no development of Affordable Housing units and there would be no pollutant emissions. There would be no conflict or obstruction of the implementation of the SCAQMD 2016 AQMP. Therefore, pursuant to Threshold 4.1-1, there would be no impacts associated with applicable air quality plans.*

Threshold 4.1-2

Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

All Project Development Scenarios

Construction

As discussed in Section 3.4, Description of the Alternatives, mass grading will have been completed as part of the site preparation by RMV; however, there would still be the need to do some minor grading on the Affordable Housing site to accommodate the final design. It is estimated that approximately 10,000 cubic yards of cut and fill would be required for each of the Affordable Housing sites. The estimate of 10,000 cubic yards is based on the grading required to do the finish grading (e.g., building foundations, onsite utility trenching, and community pool) that will be required as part of building construction and is consistent with the earthwork quantities for comparable projects in Planning Areas 1 and 2.

Mass Emissions

During the construction periods for the proposed Project, air pollutants would be emitted by off-road and on-road construction equipment and worker vehicles, and fugitive dust would be generated during earth-moving and grading activities on site.

Because construction emissions impacts are based on the intensity of construction (e.g., pounds per day), as opposed to total emissions, maximum impacts have been developed based on an assumption of concurrent construction of two Affordable Housing sites. This is expected to be a worst-case scenario based on the anticipated sequential timing and phasing of Planning Area development as shown in Table 3-3 in Section 3 of this EIR. Concurrent construction could potentially occur with all three Project development scenarios. Thus, for purposes of air quality impacts, this analysis examines the impacts of Scenario 3, which proposes the most number of

affordable units among the Project development scenarios, and thus would capture analysis of the lower number of units estimated in Scenarios 1 and 2.

The following assumptions were used to develop input to the quantitative emissions analysis. These assumptions were based on information provided for Alterative 3, which is largest development scenario. While actual construction may vary from these assumptions, this scenario represents a reasonable worst case for purposes of evaluating construction emissions. Construction of the proposed Project would occur in three phases beginning in 2018 with site grading of one of the seven Affordable Housing sites within Planning Area 3. As noted above, it was conservatively assumed that during grading, up to 10,000 cubic yards (cy) of soil would be cut and ultimately reused on each Affordable Housing site. The physical building construction on the first Affordable Housing site was assumed to start in late 2018. Architectural coating (painting) would start in late 2019; paving would occur in 2020. While building and painting continue on the first Affordable Housing site, a second Affordable Housing site would start grading in 2019, followed by building on that site. Thus, during the 2018–2020 period, there would be a period of concurrent grading, building, and painting on two Affordable Housing sites, followed by concurrent building, painting, and paving on two Affordable Housing sites. Similar assumptions were made for concurrent construction activities occurring in the years 2021 through 2030.

Project construction emissions were estimated using the CalEEMod model described in Section 4.1.3. Project-specific input was based on the schedule and assumptions described above and general information provided in Section 3.0, Project Description; engineering judgment; and default model settings to estimate reasonable worst-case conditions. The details of phasing, selection of construction equipment, areas to be paved, and other input parameters, including CalEEMod data, are included in Appendix B of this EIR. Output emissions include off-road equipment exhaust; on-road vehicle exhaust; fugitive dust from grading and vehicle travel on paved and unpaved roads; and VOCs from asphalt paving and architectural coatings. The model inputs assume implementation of Standard Conditions of Approval (SC) AQ-1 and SC AQ-2, included in Section 4.1.7. SC AQ-1 requires compliance with SCAQMD Rules 403 and 402. SCAQMD Rule 403, Fugitive Dust, requires measures such as watering and controlling track-out from the Affordable Housing site. Dust-control measures are included in the emissions calculations. Construction would also be required to comply with SCAQMD Rule 402, Nuisance, which prohibits the emission of quantities of air contaminants that could cause injury, detriment, nuisance, or annoyance to the public, or that endanger the comfort, repose, health or safety of the public. SC AQ-2 requires compliance with SCAQMD Rule 1113, Architectural Coatings, which places limits on the VOC content of coatings sold and used. The results of the analysis are shown in Table 4.1-5.

The primary source of the VOC emissions generated during construction would be from architectural coatings. The primary source of NOx emissions would be diesel engines from construction equipment during grading activities. The principal source of CO, would be on-road vehicles from vendor and worker trips during the building construction phase. The primary source of PM10 and PM2.5 emissions would be during grading activities. As shown in Table 4.1-5, emissions of all pollutants would be less than the SCAQMD CEQA thresholds. The impact would be less than significant and no mitigation is required. Nonetheless, as discussed in detail below, given the potential cumulative impacts associated with development of the Project concurrently with the Ranch Plan, mitigation measure MM AQ-1 will be required of the Project.

Implementation of MM AQ-1 would reduce Project level pollutant emissions, and thus reduce the Project's incremental contribution to air quality impacts.

TABLE 4.1-5
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2018	5	42	42	<0.5	5	3
2019	24	42	46	<0.5	6	3
2020	26	60	63	<0.5	11	6
2021	4	31	38	<0.5	4	2
2022	24	42	57	<0.5	6	3
2023	27	70	95	<0.5	14	7
2024	38	66	94	<0.5	11	6
2025	38	51	77	<0.5	11	5
2026	0	0	0	0	0	0
2027	2	14	19	<0.5	4	2
2028	15	20	32	<0.5	2	1
2029	2	14	19	<0.5	4	2
2030	15	15	33	<0.5	2	1
SCAQMD CEQA Thresholds (Table 4.1-4)	***75***	***100***	***550***	***150***	***150***	***55***
Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District; CEQA: California Environmental Quality Act.

* It is not anticipated that, when the Project is implemented, there would be zero emissions in 2026. However, the compression of the schedule to provide concurrent construction activities results in showing no construction in 2026.

Source: SCAQMD 2015d (thresholds). Emissions calculations can be found in Appendix B.

Local Emissions

For the proposed Project, the localized effects from the on-site portion of daily construction emissions were evaluated at receptor locations potentially impacted by the Project according to the SCAQMD's LST methodology, described above. Consistent with the LST methodology guidelines, when quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts, because, for the most part, they occur away from the site and local area.

For the CO and NO_2 LST exposure analysis, receptors who could be exposed for one hour or more are considered. For the PM10 and PM2.5 LST exposure analysis, receptors who could be exposed for 24 hours are considered. LST impacts are analyzed for a receptor up to 500 meters from the

Project site.[7] Currently, there are no receptors (e.g., residences) within approximately 1/3 to ½ mile (530 to 800 meters) of the known Project sites who would potentially be exposed for 24 hours. However, at the time of Project construction, other development will be occurring in the Planning Areas. Therefore, to ensure worst-case analysis, PM10 and PM2.5 LSTs are analyzed. Receptors at future residences immediately adjacent to Project development sites could be exposed to construction emissions. For the LST analysis, a distance of 25 meters is used, which, according to the methodology, is used for all receptors within a distance of 25 meters. The impact at receptors at distances greater than 25 meters would be less than at receptors within 25 meters of the Project site. The maximum on-site daily construction emissions for PM2.5 would occur during grading in 2018; for PM10 during the grading of the second Affordable Housing site in 2020, and for NOx and CO would occur during building in 2018.[8] Local emissions and impacts in later years in Planning Area 3 and in other Planning Areas would be the same or less than analyzed for Planning Area 3 because the grading activity would be the same or similar and the construction equipment would be the same or would be newer and have less emissions.

As shown in Table 4.1-6 below, localized emissions for NOx, CO, PM10, and PM2.5 would be below their respective SCAQMD LSTs. There would be a less than significant impact for the proposed Project related to local emissions during construction, and no mitigation is required.

TABLE 4.1-6
MAXIMUM LOCALIZED DAILY CONSTRUCTION EMISSIONS

	Emissions (lbs/day)			
Year	**NOx**	**CO**	**PM10**	**PM2.5**
Maximum Daily Emissions (2019)	39	29	5.0	2.8
SCAQMD LST*	***153***	***1,058***	***8.0***	***5.3***

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District; LST: Localized Significance Threshold.

* While the Project is located within two different Source Receptor Areas (SRA 19, Saddleback Valley and SRA 21, Capistrano Valley), the thresholds for both SRAs are the same. Thresholds for Source Receptor Areas 19 and 21, Saddleback Valley and Capistrano Valley, 3-acre site, 25-meter receptor distance.

Sources: SCAQMD 2009 (for LSTs). Emissions calculations can be found in Appendix B.

Operational Emissions

Mass Emissions

Operational emissions are calculated with CalEEMod for 2030, which is the proposed Project's estimated completion of building and the full occupancy year for the Project. Operational emissions are comprised of area, energy, and mobile source emissions. Area source emissions would result from the use of consumer products, landscaping equipment, and periodic repainting of buildings. Energy emissions come from the use of natural gas for heating and hot water. Mobile emissions come from vehicles that would be used by residents, employees,

7 The LST method uses metric measurements for source-to-receptor distances.

8 In the lookup table method, NOx emissions are used to evaluate NO_2 concentrations.

visitors, customers, and vendors. There would be no residential fireplaces based on the multi-family affordable nature of the proposed development.

Project design would comply with California Building Code requirements for energy efficiency in place at the time of Affordable Housing site development. For purposes of this analysis, it was assumed that 2016 codes would be applicable.[9] The 2016 Code has been assessed to be 28 percent more efficient for Title 24 electric and gas applications in residential construction than the 2013 Code (CEC 2015). Mobile source emissions are based on Project trip generation forecasts, as contained in the *Orange County Affordable Housing Implementation Program Traffic Study* (provided in Appendix D and summarized in Section 4.9, Transportation/Traffic).

Estimated maximum daily operational emissions for all three development scenarios are presented below in Tables 4.1-7 through 4.1-9. Scenario 1 would generate an estimated 3,240 average daily trips (ADT); Scenario 2 would generate an estimated 4,322 ADT; and Scenario 3 would generate an estimated 6,487 ADT.

Estimated peak daily operational emissions for Scenario 1 are shown in Table 4.1-7; for Scenario 2 in Table 4.1-8; and for Scenario 3 in Table 4.1-9. All emissions are compared with SCAQMD CEQA thresholds for operations.

TABLE 4.1-7
ESTIMATED MAXIMUM DAILY OPERATIONAL EMISSIONS FOR SCENARIO 1

Source	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area Sources[a]	13	1	46	<0.5	<0.5	<0.5
Energy Sources[a]	<0.5	1	<0.5	<0.5	<0.5	<0.5
Mobile Sources[a]	7	14	75	<0.5	26	7
Total Gross Operational Emissions[b]	20	16	121	<0.5	26	7
SCAQMD Thresholds (Table 4.1-4)	***55***	***55***	***550***	***150***	***150***	***55***
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.

[a] Values shown are the higher of summer/winter emissions.
[b] Totals may not add due to rounding.

Sources: SCAQMD 2015d (thresholds). Emissions calculations can be found in Appendix B.

[9] The Affordable Housing development would be required to comply with the Building Code in place at the time the Affordable Housing site is developed. Since Project construction will extend over multiple years, updated building codes, with potentially more stringent requirements will be in place at the time the many of the Affordable Housing sites are being developed. However, since those standards cannot be known at this time, the requirements of the 2016 California Building Code have been assumed as part of this analysis.

TABLE 4.1-8
ESTIMATED MAXIMUM DAILY OPERATIONAL EMISSIONS FOR SCENARIO 2

Source	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area Sources[a]	16	1	61	<0.5	<0.5	<0.5
Energy Sources[a]	<0.5	1	<0.5	<0.5	<0.5	<0.5
Mobile Sources[a]	10	19	100	1	34	9
Total Gross Operational Emissions[b]	26	21	161	1	34	10
SCAQMD Thresholds (Table 4.1-4)	***55***	***55***	***550***	***150***	***150***	***55***
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.

[a] Values shown are the higher of summer/winter emissions.
[b] Totals may not add due to rounding.

Sources: SCAQMD 2015d (thresholds). Emissions calculations can be found in Appendix B.

TABLE 4.1-9
ESTIMATED MAXIMUM DAILY OPERATIONAL EMISSIONS FOR SCENARIO 3

Source	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area Sources[a]	23	1	91	<0.5	1	1
Energy Sources[a]	<0.5	1	1	<0.5	<0.5	<0.5
Mobile Sources[a]	14	29	150	1	51	14
Total Gross Operational Emissions[b]	38	31	242	1	52	15
SCAQMD Thresholds (Table 4.1-4)	***55***	***55***	***550***	***150***	***150***	***55***
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.

[a] Values shown are the higher of summer/winter emissions.
[b] Totals may not add due to rounding.

Sources: SCAQMD 2015d (thresholds). Emissions calculations can be found in Appendix B.

As shown in Tables 4.1-7 through 4.1-9, the estimated maximum daily operational emissions of all pollutants for the Project development scenarios would be less than the SCAQMD thresholds and less than significant. No mitigation is required.

Local Emissions

Carbon Monoxide Hotspots

In an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations generally are found close to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (e.g., congested intersection) increases. Therefore, for purposes of providing a conservative worst-case impact analysis, CO concentrations typically are analyzed at congested intersection locations. If impacts are less than significant close to congested intersections, impacts also would be less than significant at more distant sensitive-receptors and other locations.

As discussed in Section 4.1.3, projects might increase CO concentrations if they (1) increase the percentage of vehicles in cold start mode by two percent or more; or (2) increase traffic volumes by five percent or more over existing volumes. Because the proposed Project would be built approximately concurrently with RMV development in presently undeveloped areas, the Project-related increases in cold starts or traffic volumes compared to existing conditions is not applicable. Therefore the CO analysis is based on a review of intersection operations. Project traffic impacts were analyzed under two temporal scenarios;; the Alternative Baseline and Long-Range (2035). The Alternative Baseline considers the implementation of the Ranch Plan Planned Community as part of the baseline conditions as describe in Section 3.3.4 of this PEIR. The Long Range (2035) analysis considers conditions both with and without the extension of the State Route (SR) 241 Toll Road. The Traffic Study forecasts that the following intersections would operate at LOS E or LOS F with and without the Project:

- Valle Road/San Juan Creek Road during the PM peak hour in the Long-Range (2035) Cumulative Conditions Without the State Route (SR) 241 Toll Road Extension scenario would operate at LOS E for all Project development scenarios and the No Project Alternative.
- I-5 northbound direct on-ramp/Crown Valley Parkway during the PM peak hour in the Alternative Baseline and the Long-Range (2035) With the SR-241 Toll Road Extension scenarios would operate at LOS F for all Project development scenarios and the No Project Alternative.

For CO hotspot analysis, "worsen traffic" is defined as a degradation in operations, which, for this analysis, would be an increase in intersection capacity utilization (ICU). Based on the Project intersection analysis data, the proposed Project would not increase the ICU at either intersection and therefore, would not worsen traffic (Stantec 2015).

Consistent with the CO Protocol, these findings indicate that quantitative screening is not required. As such, the impact related to CO hotpots would be less than significant for the proposed Project and no mitigation measures are required.

Impact Conclusion: *For Threshold 4.1-2, construction mass emissions and local construction emissions would be less than the SCAQMD CEQA significance thresholds and would be less than significant. Mass operational emissions would not exceed the SCAQMD CEQA significance thresholds and would be less than*

significant. Local CO emissions would not have the potential to exceed applicable standards and would be less than significant.

No Project Alternative

Under the No Project Alternative, no additional Affordable Housing units would be provided. There would be no new construction emissions and no new operational emissions. There would be no traffic generated by the Project and therefore no potential for a CO hotspot.

Impact Conclusion: *With the No Project Alternative, there would be no new mass emissions associated with operations or new local construction emissions associated with construction of new housing units. Therefore, SCAQMD CEQA significance thresholds would not be exceeded and there would be no impacts. Local CO emissions would not have the potential to exceed applicable standards. Therefore, there would be no impacts pursuant to Threshold 4.1-2. No mitigation would be required.*

Threshold 4.1-3

Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State Ambient Air Quality Standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

All Project Development Scenarios

The SoCAB is a nonattainment area for PM10, PM2.5, and O_3 (see Table 4.1-2). As discussed under Threshold 4.1-2 and shown in Tables 4.1-6 through 4.1-8, the estimated maximum daily operational emissions for each of the Project development scenarios would be below the SCAQMD thresholds for Project mass operational emissions of PM10, PM2.5, and the O3 precursors VOC and NOx would be less than significant for all Project development scenarios. SCAQMD's basic policy with respect to cumulative impacts is that impacts that would be directly less than significant would also be cumulatively less than significant (SCAQMD 2003). Therefore, the proposed Project's long-term mass operational emissions of the nonattainment pollutants would be cumulatively less than significant.

As shown in Table 4.1-5, Project mass construction emissions would be less than SCAQMD significance thresholds and, as discussed above, pursuant to the SCAQMD's methodology, the impact would be considered to be cumulatively less than significant. However, it is acknowledged that construction of the Affordable Housing units at each Project site could occur concurrently with construction of the development in each Ranch Plan Planning Subareas. The Ranch Plan Program EIR No. 589 concluded that there would be significant and unavoidable construction emissions impacts, with an emphasis on NOx emissions. While off-road construction equipment is currently much cleaner than a decade ago when the FEIR 589 was prepared, it is considered that (1) the combined construction emissions during the development of any of the Subareas where the Project would be developed would exceed the SCAQMD NOx emissions thresholds and (2) the Project contribution would incrementally add to these emissions. Therefore, in an abundance of caution, the EIR is finding that there could potentially be a significant cumulative impact as it pertains to construction emissions. To reduce this

potential cumulative impact, MM AQ-1 and MM AQ-2 would be implemented. MM AQ-1 outlines construction procedures that would minimize construction emissions. MM AQ-2 requires the use of newer construction equipment with reduced NOx emissions as mandated by the USEPA and CARB. MM AQ-2 requires that all diesel equipment greater than 50 horsepower be at least Tier 3 certified and that Tier 4 equipment be used where available. With the implementation of MM AQ-2, Project NOx emissions would be 50 percent or less than shown in Table 4.1-5. However, the remaining incremental emissions would still contribute to the overall Subarea emissions attributable to development of the Ranch Plan, and the cumulative impact would be significant and unavoidable.

Impact Conclusion: *Project-level mass operational emissions of nonattainment pollutants and their precursors would not exceed SCAQMD thresholds and impacts would be less than significant. Project-level mass construction emissions would also be less than significant. However, because the Project would be implemented in conjunction with the development of Ranch Plan, which did identify significant construction emissions with an emphasis on NOx, cumulatively mass construction impacts are potentially a significant impact. Mitigation measures MM AQ-1 and MM AQ-2 are recommended to reduce incremental Project impacts. However, given that emissions attributable to development of the Ranch Plan were found to be significant and unavoidable, cumulative impacts would remain significant and unavoidable pursuant to Threshold 4.1-3.*

No Project Alternative

As mentioned above, the SoCAB is a nonattainment area for PM10, PM2.5, and O_3. However, with no new Affordable Housing units being built or operating under the No Project Alternative, there would be no mass operational emissions of PM10, PM2.5, and the O_3 precursors VOC and NOx. No cumulative impacts would occur. The No Project Alternative would not have long-term emissions of the nonattainment pollutants and would be not cumulatively considerable. There would be no impact associated with this threshold.

With no development of Affordable Housing Project, there would be no additional mass construction emissions. As such, there would be no cumulative construction impact of nonattainment pollutants.

Impact Conclusion: *For Threshold 4.1-3, there would be no mass operational emissions of nonattainment pollutants or their precursors. As such, impacts would not be cumulatively considerable. There would be no mass construction emissions of nonattainment pollutants or their precursors. As such, there would be no impacts. No mitigation would be required.*

Threshold 4.1-4

Would the project expose sensitive receptors to substantial pollutant concentrations?

All Project Development Scenarios

As discussed under Methodology, currently there is no development in close proximity to the identified Affordable Housing sites. However, as the Ranch Plan develops and the Affordable Housing sites become available, there could be other residential housing being developed within the same Planning Subareas as the proposed Affordable Housing sites. This has the potential of adding sensitive receptors in closer proximity to the proposed Project sites. Local concentrations and emissions of criteria pollutants generated during construction are addressed in Threshold 4.1-2. Because emissions would be less than SCAQMD CEQA significance thresholds, the exposure of sensitive receptors would be less than significant.

Local concentrations of CO resulting from Project-generated traffic at severely congested intersections is addressed in Threshold 4.1-2. As shown in that analysis, the proposed Project would not increase ICU at the analyzed intersection. Therefore, the Project would not contribute to a violation of standards and there would be no potential for a CO hotspot. Therefore, the exposure of sensitive receptors would be less than significant.

Toxic Air Contaminants

Construction

The greatest potential for TAC emissions during construction would be related to diesel PM emissions associated with heavy equipment operations during earth-moving activities. However, as noted above, the large-scale earthmoving activities would be conducted as part of the implementation of the Ranch Plan. The earthwork associated with the Project would be the fine grading, foundation, and utilities installation activities, which would not require heavy diesel-engine equipment.

When quantitative analysis of TAC exposure is required, the applicable thresholds are the cancer risk and hazard index limits shown in Table 4.1-4. The assessment of cancer risk is typically based on a 70-year exposure period to the closest residential receptors and a 30-year exposure to off-site workers. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be a significant issue due to the short-term nature of construction activities relative to these exposure periods. Additionally, construction would occur for approximately four months or less at each Affordable Housing site, which is relatively short when compared with the 70-year exposure period used in the assessment of cancer risk. Because exposure to diesel exhaust would be well below the 70-year exposure period, construction of the proposed Project is not anticipated to result in an elevated cancer risk to exposed persons due to the short-term nature of construction. As such, Project-related toxic emission impacts during construction would not be significant and no mitigation is required.

On-Site Operations

The Project proposes residential uses. This use would not be a notable source of TACs because TAC generators are generally such things as construction equipment or buses that use diesel,

and residential developments are not considered large generators of TAC. The impact from on-site operational TAC sources would be less than significant as it relates to sensitive receptors on and off the Project site.

Off-Site Sources

CARB's 2005 Air Quality and Land Use Handbook cautions against siting sensitive receptors near sources of substantial TACs. These sources include but are not limited to freeways, distribution centers, and major service and maintenance rail yards. The recommended minimum distance from a freeway to sensitive receptors is 500 feet. The Project site is more than 500 feet from SR-241 and SR-74 (which is a two-lane arterial in this location). The minimum recommended distance is 1,000 feet for distribution centers in order to accommodate more than 100 trucks per day or more than 40 trucks per day with transport refrigeration units. No distribution centers were identified within 1,000 feet of the Project site. There are no major rail yards near the Project site. Other sources identified in the CARB guidelines (e.g., chrome platers and gasoline dispensing facilities) have not been identified near the Project site. The TAC impact to future residents and employees of the proposed Project would be less than significant. No mitigation is required.

Impact Conclusion: *Exposure of sensitive receptors to criteria pollutants from on-site construction, to CO at congested intersections, or to off-site and future on-site receptors from TACs would be less than significant for Threshold 4.1-4.*

No Project Alternative

As mentioned previously, no new Affordable Housing units would be constructed or operated under the No Project Alternative. As a result, there would be no TAC emissions from construction activities. As such, there would be no Project-related TAC emissions impacts associated with construction. There would be no impacts and no mitigation is required.

The No Project Alternative would not include additional uses. As such, there would not be a notable source of TACs. There would be no impacts from on-site operational TAC sources.

As mentioned above, CARB's 2005 Air Quality and Land Use Handbook cautions against siting sensitive receptors near sources of substantial TACs. These sources include but are not limited to freeways, distribution centers, and major service and maintenance rail yards. The No Project Alternative would not permit any additional development. As such, no sensitive receptors would be located near freeways, distribution centers, or major service and maintenance rail yards.

Impact Conclusion: *Under the No Project Alternative, there would be no exposure of sensitive receptors to criteria pollutants from on-site construction, to CO at congested intersections, or to off-site and future on-site receptors from TACs. Impacts would be less than significant for Threshold 4.1-4. No mitigation is required.*

4.1.7 CUMULATIVE IMPACTS

By its very nature, air pollution is largely a cumulative impact. SCAQMD's basic policy with respect to cumulative impacts is that impacts that would be directly less than significant would also be cumulatively less than significant (SCAQMD 2003).

As discussed under Threshold 4.1-1, the Project would be consistent with adopted regional growth projections. As analyzed under Threshold 4.1-2, regional and local construction emissions and regional operation emissions are below applicable significance thresholds. Threshold 4.1-3 analyzed the cumulative condition for criteria pollutants for which the Project region is nonattainment. None of the emissions associated with PM10, PM2.5, and the O_3 precursors (those criteria pollutants that are non-attainment for the Project area) exceed threshold limits. As discussed under Threshold 4.1-4, sensitive receptors would be not be exposed to short-term and long-term criteria pollutant or TAC emissions. Impacts would be less than significant and would not significantly contribute to the cumulative condition.

As outlined in Section 4.0.1, the cumulative analysis considers the growth projected in the OCP-2014 projections. As noted above, SCAQMD's basic policy with respect to cumulative impacts is that impacts that would be directly less than significant would also be cumulatively less than significant (SCAQMD 2003). Notwithstanding the above general conclusions, it is an acknowledgement that construction of the Affordable Housing units at each Project site would occur in conjunction with development of the remainder of the each Ranch Plan Planning Subarea. The Ranch Plan Program EIR No. 589 concluded that there would be significant and unavoidable construction emissions impacts, with an emphasis on NOx emissions. While off-road construction equipment is currently much cleaner than a decade ago when the FEIR 589 was prepared, given that the Project will be implemented concurrently with the larger Ranch Plan development, which was found to have significant unavoidable impacts related to construction emissions, it is considered that (1) the construction emissions during the development of any of the Ranch Plan Subareas where the Project would be developed would exceed the SCAQMD NOx emissions thresholds and (2) the Project contribution would incrementally add to these emissions. Therefore, there would potentially be a significant cumulative impact. To reduce this potential cumulative impact, MM AQ-1 and MM AQ-2 would be implemented. MM AQ-1 outlines construction procedures that would minimize construction emissions and MM AQ-2 requires the use of newer construction equipment with reduced NOx emissions as mandated by the USEPA and CARB. MM AQ-2 requires that all diesel equipment greater than 50 horsepower be at least Tier 3 certified and the Tier 4 equipment be used where available. With the implementation of MM AQ-2, Project NOx emissions would be 50 percent or less than shown in Table 4.1-5. However, the remaining incremental emissions would still contribute to the overall Sub-Area emissions and the cumulative impact would be significant and unavoidable.

4.1.8 MITIGATION PROGRAM

Standard Conditions and Requirements

SC AQ-1 During construction of the Project, the County or its designee shall comply with South Coast Air Quality Management District (SCAQMD) Rules 402 and 403, in order to minimize short-term emissions of dust and particulates. SCAQMD Rule 402 requires that air pollutant emissions not be a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. This requirement shall be included as notes on the contractor specifications. The County or its designee shall provide the Manager of Building & Safety, or his/her designee with

a SCAQMD-approved Dust Control Plan or other sufficient proof of compliance with Rule 403, prior to issuance of a grading permit.

SC AQ-2 Architectural coatings shall be selected so that the volatile organic compound (VOC) content of the coatings is compliant with SCAQMD Rule 1113. This requirement shall be included as notes on the contractor specifications. The specifications for each project within the Development Plan area shall be reviewed by the Manager of Building & Safety or his/her designee for compliance with this requirement prior to issuance of a building permit.

Mitigation Measures

MM AQ-1 Prior to issuance of each grading and building permit, the Applicant shall provide plans and specifications demonstrating that construction documents require the construction contractors to implement the following measures or provide information and data that demonstrates that implementation would not be feasible:

a. Electricity shall come from power poles rather than diesel- or gasoline-fueled generators, compressors, or similar equipment.

b. Construction parking shall be configured to minimize traffic interference.

c. Construction trucks shall be routed away from congested streets and sensitive receptors.

d. Construction activities that affect traffic flow on the arterial system shall be scheduled to off-peak hours to the extent practicable.

e. Temporary traffic controls, such as a flag person(s), shall be provided where necessary to maintain smooth traffic flow.

f. Dedicated turn lanes for movement of construction equipment on and off site and signal synchronization shall be provided as necessary to maintain smooth traffic flow.

g. All construction equipment shall be tuned and maintained in accordance with the manufacturer's specifications.

h. Diesel truck idling time shall be five minutes or less, both on and off site.

i. Work crews shall shut off diesel equipment when not in use.

j. Where available, recycled water shall be used for dust control.

k. Workers shall be encouraged to ride-share for commuting.

MM AQ-2 Prior to the issuance of each grading and building permit, the Applicant shall provide plans and specifications demonstrating that construction documents require all off-road diesel-powered construction equipment greater than 50 horsepower (hp) meet Tier 3 off-road emissions standards as a minimum and shall meet Tier 4 emissions standards, where reasonably available. In addition, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by the California Air Resources Board (CARB). Any

emissions-control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. The contractor shall comply with the identified requirements, and verification that the contractor has complied shall be confirmed by the Building and Safety Services Department during construction. A copy of each unit's certified Tier specification shall be provided to the Building Department at the time of mobilization of each applicable unit of equipment.

4.1.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Project development scenarios would be consistent with adopted regional growth projections. Construction and operational emissions are below applicable significance thresholds. Sensitive receptors would be not be exposed to substantial short-term and long-term criteria pollutant or TAC emissions. All Project related impacts would be less than significant. However, because the Project would be constructed in conjunction with, and in the same geographic location as the Ranch Plan, the Project could potentially contribute to the local cumulative construction emissions. The construction air emissions generated by the Ranch Plan were previously identified in Final EIR 589 as a significant unavoidable impact of the Ranch Plan, and thus the Project would contribute to a significant unavoidable construction air quality impact that has already been identified.

4.1.10 REFERENCES

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4.2 GREENHOUSE GAS EMISSIONS

This section addresses greenhouse gas (GHG) emissions anticipated from construction and operation of the proposed Project and its potential global climate change impacts. The Project's estimated construction and operational GHG emissions were calculated by using the California Emissions Estimator Model (CalEEMod, Version 2013.2.2); the inputs and data for the Project are included in Appendix C.

Global Climate Change and Greenhouse Gases

Climate change is a recorded change in the Earth's average weather measured by variables such as wind patterns, storms, precipitation, and temperature. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages. The year 2014 ranks as Earth's warmest year since 1880, and the ten warmest years in the instrumental record, with the exception of 1998, have now occurred since 2000. The average global temperature has risen about 1.4 degrees Fahrenheit (°F) (0.8 degree Celsius [°C]) since 1880 (NASA 2015).

The global atmospheric concentration of carbon dioxide (CO_2) has increased from a pre-industrial (roughly 1750) value of about 280 parts per million (ppm) to a peak of 403.94 ppm in May 2015; the November 2015 concentration was 400.38 ppm. The increase is primarily due to fossil fuel use, with land use change providing a significant but smaller contribution. The annual CO_2 concentration growth rate during the ten-year period between 1995 and 2005 was larger than the growth rate from the beginning of continuous direct measurements in 1960 to 2005 (ESRL 2016).

Greenhouse Gases

GHGs are global pollutants and are therefore unlike criteria air pollutants such as ozone (O_3), particulate matter (PM10 and PM2.5), and toxic air contaminants (TACs), which are pollutants of regional and local concern (see Section 4.1, Air Quality, of this EIR). While pollutants with localized air quality effects have relatively short atmospheric lifetimes (generally on the order of a few days), GHGs have relatively long atmospheric lifetimes, ranging from one year to several thousand years. Long atmospheric lifetimes allow for GHGs to disperse around the globe. Therefore, GHG effects are global, as opposed to the local and/or regional air quality effects of criteria air pollutant and TAC emissions.

GHGs, as defined under California's Assembly Bill (AB) 32, include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO_2. For example, as CH_4 and N_2O are approximately 25 and 298 times (respectively) more powerful than CO_2 in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO_2 has a GWP of 1). Carbon dioxide equivalent (CO_2e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e.

General Environmental Effects of Global Climate Change

Executive Order S-3-05 mandates the preparation of biennial science assessment reports on climate change impacts and adaptation options for California. Executive Order S-13-08 directs the California Natural Resources Agency (CNRA) to develop a State Climate Adaptation Strategy and to provide State land use planning guidance related to sea level rise and other climate change impacts. Current reports resulting from these directed actions are the *Climate Action Team Report to the Governor and Legislature* and the *California Climate Adaptation Strategy* (CalEPA 2010; CNRA 2009). These studies report that global warming in California is anticipated to impact resources including, but not limited to, those discussed below.

- **Public Health.** Many Californians currently experience the worst air quality in the nation, and climate change is expected to make matters worse. Higher temperatures would increase the frequency, duration, and intensity of conditions conducive to air pollution formation. If global background O_3 levels increase as predicted under some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by more frequent wildfires, which emit fine particulate matter that can travel long distances. Rising temperatures and more frequent heat waves would increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress. Climate change may also increase asthma rates and the spread of infectious diseases and their vectors and could challenge food and water supplies. Children, the elderly, people with chronic heart or lung disease, outdoor workers, people who exercise outdoors, and the economically disadvantaged would be particularly vulnerable to these changes. In addition, more frequent extreme weather events could also result in increased injuries and deaths from these phenomena.
- **Energy.** Increasing mean temperature and more frequent heat waves will drive up demand for cooling in summer; this new energy demand will only be partially offset by decreased demand for heating in winter. Hydropower, which currently provides 15 percent of in-state generation, would be threatened by declining snowpack, which serves as a natural reservoir for hydropower generation in the spring and summer. Winter storms, earlier snowmelt, and greater runoff may combine to cause flooding, which could, in turn, damage transmission lines and cause power outages.
- **Water Resources.** Rising temperatures, less precipitation, and more precipitation falling as rain instead of snow could severely diminish snowpack. Because the Sierra Nevada snowpack provides most of California's available water, this potential loss would increase the risk of summer water shortages and would hamper water distribution and hydropower generation. The diminished snowpack would also nearly eliminate all skiing and other snow-related recreation. Rising sea levels would push saltwater into California's estuaries, wetlands, and groundwater aquifers, threatening the water quality and reliability in the Sacramento/San Joaquin River Delta—a major California freshwater supply. Extreme precipitation and flooding could also damage water quality by creating sudden increases in runoff. Moreover, warming would increase evapotranspiration rates from plants, soil, and open water surfaces, which would result in greater demand for irrigation. Overall, climate change would reduce California's water supplies even as its growing population requires additional resources.

- **Sea Level and Flooding.** Sea level at California's coasts is expected to rise by 11 to 18 inches above 2000 levels by 2050 and by 23 to 55 inches by 2100. If realized, these increases would create more frequent and higher storm surges; would erode some coastal areas; and would increase pressure on existing levees. These increases would create a greater risk of flooding in previously untouched inland areas. Consequently, continued development in vulnerable coastal areas would put more people and infrastructure at risk.
- **Agriculture.** Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, in the long-term, climate change would reduce the quantity and quality of agricultural products statewide. As temperatures rise, farmers will face greater water demand for crops and a less reliable water supply, as well as increased competition from urban water users. Sea level rise may cause saltwater intrusion in the Delta region, making it difficult to raise certain crops. Rising temperatures will likely aggravate O_3 pollution, interfering with plant growth and making plants more susceptible to disease and pests. In addition, warming would reduce the number of colder hours needed for fruit and nut production; would shift pest and weed ranges; would alter crop-pollinator timing; and would increase the frequency of droughts, heat waves, and floods. Higher average temperatures would also increase mortality and decrease productivity in livestock.
- **Forestry.** California timber production has declined over the past few decades due, in part, to warming and increased wildfires. While further warming may increase production for some species in some locations, climate change is expected to reduce overall forest growth. Increasing average temperatures and drought frequency would result in more wildfires and greater burned areas, while less frequent and more intense rainfall would increase soil erosion and landslides. Higher temperatures and less water would force many tree species to shift their ranges; those that run out of livable habitat may die out. Pests, diseases, and invasive species may also colonize new areas, further challenging forest health and biodiversity.
- **Ecosystems.** Rising average temperatures would subject plants and animals to greater thermal stress, causing some species to adapt or shift their ranges, while others may face extinction. Invasive species may also shift their ranges, threatening native species. Changing temperatures would also alter the timing of plant flowering and insect emergence, damaging species' ability to reproduce. Changing precipitation patterns would impact aquatic and riparian ecosystems by reducing snow pack, stream flow, and groundwater, while increasing the frequency of droughts, floods, and wildfires. As sea levels rise, some coastal habitats may be permanently flooded or eroded, and saltwater intrusion into freshwater resources may threaten terrestrial species. Changes in ocean circulation and temperature, ocean acidification, and increased runoff and sedimentation would threaten pelagic species. In sum, continued global warming would alter natural ecosystems and threaten California's biological diversity.

4.2.1 REGULATORY SETTING

Federal

U.S. Environmental Protection Agency Findings

On December 7, 2009, the U.S. Environmental Protection Agency (USEPA) Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act (CAA). The findings state the following:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the USEPA's proposed GHG emission standards for light-duty vehicles (USEPA 2015b). A light-duty vehicle is defined any motor vehicle with a gross vehicle weight of 6,000 pounds or less (CARB 2015a).

Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) have been working together on developing a National Program of regulations to reduce GHG emissions and to improve the fuel economy of light-duty vehicles. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking establishing standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. The rules require these vehicles to meet an estimated combined average emissions level of 295 grams of CO_2 per mile by 2012, decreasing to 250 grams per mile by 2016, and finally to an average industry fleet-wide level of 163 grams per mile in model year 2025. The 2016 standard is equivalent to 35.5 miles per gallon (mpg), and the 2025 standard is equivalent to 54.5 mpg if the levels were achieved solely through improvements in fuel efficiency. The agencies expect, however, that a portion of these improvements will occur due to air conditioning technology improvements (i.e., they will leak less) and due to the use of alternative refrigerants, which would not contribute to fuel economy. These standards would cut GHG emissions by an estimated 2 billion metric tons and 4 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2017–2025). The combined USEPA GHG standards and NHTSA Corporate Average Fuel Economy (CAFE) standards resolve previously conflicting requirements under both federal programs and the standards of the State of California and other states that have adopted the California standards (USEPA 2010; USEPA and NHTSA 2012).

State

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs in California. There are numerous State plans, policies, regulations, and laws related to GHGs and global climate change. Following is a brief discussion of the plans, policies, and regulations most relevant to the Project.

Clean Car Standards (Assembly Bill 1493)

AB 1493, adopted September 2002, also known as Pavley I, requires the development and adoption of regulations to achieve the maximum feasible reduction of GHGs emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. Although setting emissions standards on automobiles is solely the responsibility of the USEPA, the Federal Clean Air Act allows California to set State-specific emission standards on automobiles if the State first obtains a waiver from the USEPA. The USEPA granted California that waiver on July 1, 2009. The emission standards have become increasingly more stringent through the 2016 model year. California is also committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from 2020 model year vehicles (CARB 2009).

Executive Order S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05, which proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce snowpack in the Sierra Nevada Mountains; could further exacerbate California's air quality problems; and could potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, Executive Order S-3-05 establishes a goal of a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

The California Global Warming Solutions Act of 2006 (Assembly Bill 32)

In furtherance of the goals established in Executive Order S-3-05, the California Legislature adopted the public policy position that global warming is "a serious threat to the economic well-being, public health, natural resources, and the environment of California" (*California Health and Safety Code,* Section 38501). Further, the State Legislature determined that:

> the potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra Nevada snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems.

The State Legislature also stated that:

> Global warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and

> commercial fishing, and forestry. It will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the State (*California Health and Safety Code,* Section 38501).

These public policy statements became law with the enactment of AB 32, the California Global Warming Solutions Act of 2006, signed by Governor Arnold Schwarzenegger in September 2006. AB 32 is now codified as Sections 38500 through 38599 of the *California Health and Safety Code.*

AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction is to be accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012. AB 32 directs CARB to establish this statewide cap based on 1990 GHG emissions levels; to disclose how it arrived at the cap; to institute a schedule to meet the emissions cap; and to develop tracking, reporting, and enforcement mechanisms. Emissions reductions under AB 32 are to include carbon sequestration projects and best management practices that are technologically feasible and cost effective.

CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. Under AB 32, CARB is also responsible for adopting regulations requiring the reporting and verification of statewide GHG emissions to monitor and enforce compliance with the established standards. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

The first action under AB 32 resulted in the adoption of a report listing early-action GHG emission reduction measures on June 21, 2007. The early actions include three specific GHG control rules. On October 25, 2007, CARB approved an additional six early-action GHG reduction measures under AB 32. The three original early-action regulations meeting the narrow legal definition of "discrete early action GHG reduction measures" consist of the following:

1. A low-carbon fuel standard to reduce the "carbon intensity" of California fuels.
2. Reduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of "do-it-yourself" automotive refrigerants.
3. Increased methane capture from landfills to require broader use of state-of-the-art methane capture technologies.

The additional six early-action regulations, which were also identified by CARB as "discrete early action GHG reduction measures", consist of the following:

1. Reduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology.
2. Reduction of auxiliary engine emissions of docked ships by requiring port electrification.
3. Reduction of PFC emissions from the semiconductor industry.
4. Reduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products).
5. Requirements that all tune-up, smog check, and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency.

6. Restriction on the use of SF_6 from non-electricity sectors if viable alternatives are available.

As required under AB 32, on December 6, 2007, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 million metric tons (MMT) of CO_2e. In addition to the 1990 emissions inventory, CARB also adopted regulations requiring mandatory reporting of GHGs for the large facilities that account for 94 percent of GHG emissions from industrial and commercial stationary sources in California. About 800 separate sources fall under the new reporting rules and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and other industrial sources that emit CO_2 in excess of specified thresholds. As discussed in more detail below, CARB has also adopted a GHG scoping plan and an update to the same.

Senate Bill 1368

In September 2006, Governor Schwarzenegger signed Senate Bill (SB) 1368, which requires the California Energy Commission (CEC) to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local, publicly owned utilities. These standards must be consistent with the standards adopted by the California Public Utilities Commission (CPUC). This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

Executive Order S-1-07

Issued on January 18, 2007, Executive Order S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California (CARB 2016b). The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10 percent by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel (including extraction/feedstock production, processing, transportation, and final consumption) per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste. In addition, the Low Carbon Fuel Standard would drive the availability of plug-in hybrid, battery electric, and fuel-cell power motor vehicles. The Low Carbon Fuel Standard is anticipated to lead to the replacement of 20 percent of the fuel used in motor vehicles with alternative fuels by 2020.

Senate Bill 97 and Amendments to the California Environmental Quality Act Guidelines

SB 97 directed the CNRA to adopt amendments to the California Environmental Quality Act (CEQA) Guidelines that require evaluation of GHG emissions or the effects of GHG emissions by January 1, 2010. The CNRA has done so through adoption of State CEQA Guidelines Section 15064.4, entitled Determining the Significance of Impacts from Greenhouse Gas Emissions, which provides that:

a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

   1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or

   2) Rely on a qualitative analysis or performance based standards.

b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

   1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

   2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

   3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The guideline amendments also add Section 15126.4(c), Mitigation Measures Related to Greenhouse Gas Emissions.

The amended guidelines also establish two new guidance questions regarding GHG emissions in the environmental checklist set forth in Appendix G of the State CEQA Guidelines:

- Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions. Generally, this State CEQA Guidelines section requires lead agencies to consider feasible means—supported by substantial evidence and subject to monitoring or reporting—of mitigating the significant effects of GHG emissions. Potential

measures to mitigate the significant effects of GHG emissions are identified, including examples such as those outlined in Appendix F, Energy Conservation, of the State CEQA Guidelines.

California Air Resources Board Climate Change Scoping Plan

In 2008, CARB approved a *Climate Change Scoping Plan* as required by AB 32. The *Climate Change Scoping Plan* proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The *Climate Change Scoping Plan* has a range of GHG reduction actions that includes direct regulations; alternative compliance mechanisms; monetary and non-monetary incentives; voluntary actions; market-based mechanisms such as a cap-and-trade system; and an AB 32 implementation regulation to fund the program.

The *Climate Change Scoping Plan* calls for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions will be addressed through a combination of higher standards for vehicle fuel economy; implementation of the Low Carbon Fuel Standard; and greater consideration for reducing trip length and generation through land use planning and transit-oriented development. A California cap-and-trade program that links with other Western Climate Initiative partner programs would create a regional market system and caps sources contributing 85 percent of California's GHG emissions. Buildings, land use, and industrial operations will be encouraged and, sometimes, required to use energy more efficiently. Utility energy supplies will change to include at least 33 percent of renewable energy sources in the energy mix by 2020 through implementation of the Renewables Portfolio Standard (RPS). This will be complemented with emphasis on local generation, including rooftop photovoltaics and solar hot water installations. Additionally, the *Climate Change Scoping Plan* emphasizes opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas will be accomplished through "improving energy efficiency by 25 percent" (CARB 2008).

In the 2008 Scoping Plan, CARB also developed a forecast of 2020 emissions in a business-as-usual scenario (2020 BAU), which is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. This target was 596 million metric tons of carbon dioxide equivalent ($MMTCO_2e$). The 2020 GHG emissions target of 427 $MMTCO_2e$ required the reduction of 169 $MMTCO_2e$, or about 28.5 percent from the 2020 BAU forecast.

The *Climate Change Scoping Plan* identifies a number of specific issues relevant to the Project, including those listed below (CARB 2008).

- The potential of using the green building framework as a mechanism that could enable GHG emissions reductions in other sectors (e.g., electricity, natural gas), noting that green buildings "exceed minimum energy efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health, and minimize impacts to the environment".
- The importance of increasing the supply and utilization of green power and lower carbon intensity energy sources. Broadly defined, this includes implementation of the

utility-based RPS, which requires that, by 2020, 33 percent of the available energy supplies are from renewable energy sources, solar hot water heating with a goal of 200,000 systems in California by 2017; support for the Million Solar Roofs Program; and increased use of combined heat and power.

- The importance of supporting the Department of Water Resources' work to implement the Governor's objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The *Climate Change Scoping Plan* notes that water use requires significant amounts of energy, including approximately $^1/_5$ of statewide electricity.
- Encouragement of local governments to set quantifiable emissions reduction targets for their jurisdictions and use their influence and authority to encourage reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

First Update to the Climate Change Scoping Plan

In 2014, CARB approved the *First Update to the Climate Change Scoping Plan* (First Update or 2013 Update) (CARB 2014). The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments; defines CARB's climate change priorities for the next five years; and sets the groundwork to reach California's long-term climate goals set forth in Executive Order S-3-05 (CARB 2016a).

The First Update states that California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32. The set of actions the State is taking is driving down GHG emissions and moving the State steadily in the direction of a cleaner energy economy.

The First Update identifies nine major economic sectors. For each sector, it identifies the activities, policies, and other accomplishments, primarily over the last five years, that address climate change to reduce GHG emissions to meet the 2020 statewide limit. It also identifies longer-term strategies that the State must undertake to continue to reduce GHG emissions into the future to ultimately meet the long-term climate goal. The sectors are energy; transportation; land use fuels and infrastructure; agriculture; water; waste management; natural and working lands; short-lived climate pollutants; green buildings; and cap-and-trade regulation.

As previously discussed, in the 2008 Scoping Plan, CARB established the 1990 statewide GHG emissions level, which is also the 2020 GHG emissions target, at 427 $MMTCO_2e$ and forecasted the 2020 BAU emissions to be 596 $MMTCO_2e$. Based on new information, primarily relative to the State economy and the light duty vehicles programs, the First Update also established 509 $MMTCO_2e$ as the revised 2020 BAU condition and the 1990 emissions level at 431 $MMTCO_2e$.[1]. Thus, under the First Update, reducing the 2020 BAU condition of 509 $MMTCO_2e$ to the 1990 emissions level of 431 $MMTCO_2e$ will require a statewide reduction of 78 $MMTCO_2e$ or approximately a 15.3 percent reduction (compared to a 28.5 percent reduction as set forth in the

[1] In 2013, CARB revised GHG calculations to use the GWP values from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4). Previous calculations used the GWPs from the second assessment report (SAR).

2008 Scoping Plan). Table 4.2-1 shows the expected reductions to meet the 2020 emissions target.

TABLE 4.2-1
MEETING THE 2020 EMISSIONS TARGET

Category	2020 (MMTCO2e)
AB 32 Baseline 2020 Forecast Emissions (2020 BAU)	509
Expected Reductions from Sector-Based Measures	
Energy	25
Transportation	23
High-GWP	5
Waste	2
Cap-and-Trade Reductions	23*
2020 Limit	**431**

$MMTCO_2e$: million metric tons of carbon dioxide equivalent; AB: Assembly Bill; BAU: business as usual; GWP: global warming potential

* Cap-and-Trade emission reductions depend on the emission forecast

Source: CARB 2014

As shown in Table 4.2-1, the Cap-and-Trade reduction is flexible. The estimated emission reductions attributed to the Cap-and-Trade Program depend on the emissions forecast. For example, if the emissions forecast increases, the reductions associated with the Cap-and- Trade Program will increase.

Scoping Plan Update to Reflect 2030 Target

On April 29, 2015, Governor Edmund G. Brown, Jr. issued Executive Order B-30-15 identifying a goal of establishing a mid-term GHG reduction target for California of 40 percent below 1990 levels by 2030 (COOG 2015). CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. A kickoff public workshop in furtherance of the goal identified in Executive Order B-30-15 was held in October 2015.

Senate Bill 375

Signed September 30, 2008, SB 375 provides for a new planning process to coordinate land use planning and regional transportation plans (RTPs) and funding priorities in order to help California meet the GHG reduction goals established in AB 32, by achieving regional targets for GHG emissions reductions from passenger vehicle use. SB 375 requires Metropolitan Planning Organizations, including the Southern California Association of Governments (SCAG), to incorporate a Sustainable Communities Strategy (SCS) in their regional transportation plans that will achieve GHG emission reduction targets set by CARB. The SCS contains land use, housing and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets (CARB 2016c). There are two mutually important facets to SB 375: reducing vehicle miles traveled (VMT) and encouraging more compact, complete, and efficient

communities for the future. SB 375 also includes provisions for exemptions from or streamlined CEQA review for projects classified as transit priority projects (SCAG 2012).

On September 23, 2010, CARB adopted most of the SB 375 targets for the regional Metropolitan Planning Organizations, including the 2020 target for SCAG, the designated Metropolitan Planning Organization for the Project site. On February 24, 2011, CARB adopted the 2035 target for SCAG. The targets are an 8 percent reduction in GHG emissions from automobiles and light trucks per capita by 2020 and a 13 percent reduction by 2035. See additional discussion of the SCAG plan under Local Regulations.

Advanced Clean Cars

In January 2012, CARB approved the Advanced Clean Cars (ACC) program, an emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 75 percent fewer smog-forming emissions and 34 percent fewer global warming gases (CARB 2015b).

Executive Order B-30-15

As described above, Executive Order B-30-15, establishes a goal of "[a] new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 . . . in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050" and directs CARB to update the *Climate Change Scoping Plan* to express the 2030 target in terms of $MMTCO_2e$ (COOG 2015).

Senate Bill 350

SB 350, Signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 implements some of the goals of Executive Order B-30-15 and expands on the RPS established by Senate Bill (SB) X1-2 signed into law on April 12, 2011. The objectives of SB 350 are as follows:

1. To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources.
2. To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation (California Legislative Information 2015).

The text of SB 350 sets a December 31, 2030, target for 50 percent of electricity to be generated from renewable sources.

Energy Efficiency Standards for Residential and Nonresidential Buildings

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the *California Code of Regulations* [CCR]) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The current applicable standards are the 2013 Standards, effective July 1, 2014. The 2016 Code will be published on or before July 1, 2016, and will go into effect on January 1, 2017 (CBSC 2015).

California Green Building Standards Code

The 2013 California Green Building Standards Code (24 CCR, Part 11) is a code with mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools, and hospitals) throughout California. The code is Part 11 of the California Building Standards Code in Title 24 of the *California Code of Regulations,* and is also known as the CALGreen Code (CBSC 2015).

The development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the Governor's directives. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impacts during and after construction. The CALGreen Code contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options that allow the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) is the association of Air Pollution Control Officers representing all 35 local air quality agencies throughout California. CAPCOA is not a regulatory body, but has been an active organization in providing guidance in addressing the CEQA significance of GHG emissions and climate change as well as other air quality issues.

The August 2010 CAPCOA publication entitled *Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures* provides guidance on the quantification of project-level mitigation of GHGs associated with land use, transportation, energy use, and other related project areas (CAPCOA 2010). The guidance includes detailed procedures about the approaches to assessing and calculating the GHG emissions reductions associated with project design features and mitigation measures. This publication's methods are used in the CalEEMod computer model that is used to calculate GHG emissions.

Regional

Southern California Association of Governments

As previously discussed, SB 375 specifically required Metropolitan Planning Organizations (MPOs), including SCAG, to incorporate an SCS in their RTPs that will achieve GHG emission reduction targets set by CARB. SCAG's first-ever SCS was included in its *2012–2035 Regional Transportation Plan Sustainable Communities Strategy* (RTP/SCS). The document was adopted by SCAG in April 2012. The goals and policies of the RTP/SCS that reduce VMT focus on transportation and land use planning that include building infill projects; locating residents closer to where they work and play; and designing communities so there is access to high quality

transit service. The 2012–2035 RTP/SCS is expected to reduce per capita transportation emissions by 9 percent by 2020 and by 16 percent by 2035. In June 2012, CARB accepted SCAG's determination that the Final RTP/SCS would meet the region's GHG reduction target.

SCAG updated the SCS, which is now included in its 2016-2040 RTP/SCS. The document was adopted by SCAG on April 7, 2016. The 2016-2040 RTP/SCS is expected to reduce per capita transportation emissions by 8 percent by 2020 and by 18 percent by 2035 (SCAG 2016).

South Coast Air Quality Management District

The Project site lies within the boundaries of the SCAQMD. The SCAQMD is bound by the Ventura County/Los Angeles County border to the northwest; the Mojave Desert Air Basin to the north; the Riverside County border to the east; and the San Diego County-Riverside County border the south.

The portion of the Project site under the jurisdiction of the SCAQMD lies within the South Coast Air Basin (SoCAB). The mission of the SCAQMD is to undertake all necessary steps to protect public health from air pollution, with sensitivity to the impacts of its actions on the community and businesses through a comprehensive program of planning, regulation, compliance assistance, enforcement, monitoring, technology advancement, and public education (SCAQMD 2015).

Beginning in April 2008, the SCAQMD convened a CEQA Significance Threshold Stakeholder Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. The Working Group was scheduled to meet once per month. On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold of 10,000 metric tons of CO_2 equivalent per year ($MTCO_2e$/yr) for industrial projects where the SCAQMD is the lead agency. The policy objective for establishing this significance threshold is to capture projects that represent approximately 90 percent of GHG emissions from new sources and to avoid EIR-level analysis for relatively small impacts (SCAQMD 2008).

In September 2010, the Working Group proposed extending the 10,000 $MTCO_2e$/yr screening threshold applicable to industrial projects where the SCAQMD is the lead agency, described above, to other lead agency industrial projects. For all other projects, SCAQMD staff proposed a multiple tier analysis to determine the appropriate threshold to be used. The draft proposal suggests the following tiers: Tier 1 is any applicable CEQA exemptions; Tier 2 is consistency with a GHG reduction plan; Tier 3 is a screening value or bright line; Tier 4 is a performance-based standard; and Tier 5 is GHG mitigation offsets.

According to the presentation given at the September 28, 2010, Working Group meeting, SCAQMD staff proposed a Tier 3 draft threshold of 1,400 to 3,500 $MTCO_2e$/yr depending on whether the project was commercial, mixed use, or residential. For the Tier 4 draft threshold, SCAQMD staff presented a percent emission reduction target option, but did not provide any specific recommendation for a numerical target; instead it referenced the San Joaquin Valley Air Pollution Control District (SJVAPCD) approach. The percent reduction target is based on consistency with AB 32 as it was based on the same numeric reductions calculated in the Scoping Plan to reach 1990 levels by 2020. The second Tier 4 option is to utilize efficiency targets: 2020 targets are 4.8 $MTCO_2e$ per year per service population (SP) for project-level thresholds where

the SP is project residents plus employees and 6.6 $MTCO_2e$ per year per SP for a plan-level threshold (SCAQMD 2010). Targets for 2035 are 3.0 $MTCO_2e$ per year per SP for project-level thresholds and 4.1 $MTCO_2e$ per year per SP for plan-level thresholds. Plan-level thresholds are primarily applicable to General Plans and Specific Plans and are considered when evaluating large projects planned over a long time span. Project-level thresholds are considered for individual projects, particularly mixed-use projects, generally on one site. The Working Group has not convened since the fall of 2010. As of the publication of this EIR, the proposal to establish a GHG threshold for developments like the Project has not been considered or adopted by the SCAQMD Board, but the methodology has been used by lead agencies to evaluate GHG impacts under CEQA.

Local

County of Orange

There are no County of Orange adopted policies for the reduction of GHG emissions or for determining the significance of GHG emissions under CEQA.

4.2.2 METHODOLOGY

Project emissions were calculated by using CalEEMod version 2013.2.2 (SCAQMD 2013). CalEEMod is a computer program accepted by the SCAQMD that can be used to estimate criteria pollutant and GHG emissions associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts. The Orange County database was used for the proposed Project. The model calculates emissions of carbon monoxide (CO), sulfur dioxide (SO_2), respirable particulate matter with a diameter of 10 microns or less (PM10), fine particulate matter with a diameter of 2.5 microns or less (PM2.5), and the O_3 precursors volatile organic compounds (VOC) and nitrogen oxides (NOx). For this analysis, the results are expressed in metric tons of carbon dioxide equivalent per year ($MTCO_2e$/yr). Emissions were calculated for the three Project development scenarios described in Section 3.4.1 of this PEIR. Each scenario would have a defined number of dwelling units. Because the population density would be the same for all three Project development scenario (i.e., 25 dwelling units per acre) and each scenario would be provide similar type development (i.e., multi-family apartments), it was assumed that the construction effort would be approximately proportional to the total number of units in each scenario. Please see Section 4.1, Air Quality, of this EIR for further discussion of the CalEEMod inputs, adjustments, outputs, and other characteristics.

4.2.3 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

Existing Greenhouse Gas Emissions

The Project is located within the larger Ranch Plan Planned Community (Ranch Plan). The Project sites are located on land which is presently undeveloped, but will be disturbed and graded as part of the continuing development of the Ranch Plan (see Section 3.4.4 for a discussion of the Alternative CEQA Baseline). Thus, the Alternative Baseline utilized in this EIR accounts for and assumes that the Affordable Housing sites will be graded, but does not assume alternate land uses will be located on the Project sites. There are no existing sources of GHG emissions on the Project sites.

Global, National, State, and Regional Contributions to Greenhouse Gas Emissions

Table 4.2-2 compares the magnitude of GHG emissions on the global, national, State, and regional (i.e., Orange County) scales. It shows the relative estimated quantities of GHG emissions from worldwide to Orange County. CO_2e emissions are commonly expressed as metric tons of carbon dioxide equivalent ($MTCO_2e$). Larger quantities of emissions, such as on the State or world scale, are expressed in $MMTCO_2e$. Metric tons may also be stated as "tonnes". The CO_2e for a gas is derived by multiplying the tons of the gas by the associated Global Warming Potential (GWP), such that $MMTCO_2e$ = (million metric tons of a GHG) x (GWP of the GHG). For example, the GWP for CH_4 is 21. This means that emission of 1 million metric ton of CH_4 are equivalent to the emissions of 21 million metric tons of CO_2.

TABLE 4.2-2
COMPARISON OF WORLDWIDE GREENHOUSE GAS EMISSIONS

Area and Data Year	Annual GHG Emissions ($MMTCO_2e$)
World (2012)	46,049
United States (2013)	6,673
California (2013)	459
Orange County (2011)	21

GHG: greenhouse gas; $MMTCO_2e$: million metric tons of carbon dioxide equivalent
Source: WRI 2015; USEPA 2015a; CARB 2015c; SCAG 2011.

The U.S. contributes approximately 14.5 percent of worldwide GHG emissions per year; California contributes approximately 1.0 percent; and the County contributes approximately 0.05 ($1/20^{th}$ of 1) percent. The most common GHG is CO_2, which constitutes approximately 84 to 85 percent of all GHG emissions in the U.S. and California. The primary contributors to California GHG emissions are (1) transportation; (2) electric power production from both in-state and out-of-state sources; and (3) industrial uses.

4.2.4 THRESHOLDS OF SIGNIFICANCE

The magnitude of global GHG emissions is extremely large when compared with the emissions of typical development projects. As shown in Table 4.2-2, global GHG emissions are more than 46,000 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) and Orange County emissions are approximately 0.05 ($1/20^{th}$ of 1) percent of global emissions. A recently analyzed large development project proposing 3,450 residences and 220,000 square feet of nonresidential uses would generate approximately 43,000 $MTCO_2e$, or less than 1 millionth of global GHG emissions. Therefore, it is very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change. CAPCOA's CEQA and Climate Change Report states, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). As noted by the CNRA, "due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis" (CNRA 2009). Therefore, the analysis presented in this section represents the cumulative impact analysis for the Project related to GHG emissions.

Specifically, Section 15064.4 of the State CEQA Guidelines discusses the significance evaluation for GHG emissions. Section 15064.4(a) recognizes that the "determination of the significance calls for a careful judgment" by the lead agency that is coupled with lead agency discretion to determine whether to (1) use a model or methodology and/or (2) rely on a qualitative analysis or performance-based thresholds. Section 15064.4(b) further states that a lead agency should consider the following, non-exclusive list of factors when assessing the significance of GHG emissions:

1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. The extent to which project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

In accordance with the County's Environmental Analysis Checklist and Appendix G of the State CEQA Guidelines, the Project would result in a significant greenhouse gas emissions impact if it would:

Threshold 4.2-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Threshold 4.2-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

As described in Section 4.2.1, there are no applicable, adopted quantitative GHG thresholds. In its recent decision, *Center for Biological Diversity v. Department of Fish and Wildlife,* 62 Cal. 4th 204 (2015) (*Newhall*), the Supreme Court reviewed whether an EIR prepared by the California Department of Fish and Wildlife's (CDFW) for the proposed Newhall Ranch land development project adequately analyzed the project's GHG impacts. In the EIR, the CDFW compared the proposed project's estimated GHG emissions against AB 32, using the business-as-usual (BAU) comparison as its sole criterion of significance.

The Supreme Court concluded that consistency with meeting statewide emissions reduction goals is a legally permissible criterion of significance when analyzing potential impacts of GHG emissions under CEQA. However, the Court found that the EIR's conclusion that the project's emissions would be less than significant under that criterion was not supported by substantial evidence.

The Court identified regional or localized targets or thresholds for GHG reductions based on AB 32's statewide goal as potentially viable methods for assessing a new land use project's GHG contribution. The Court then identified "potential options" for lead agencies evaluating cumulative significance of a proposed land use development's GHG emissions in future CEQA documents.

The Court identified the following approaches to the analysis of a Project's GHG emissions:

1. *Business As Usual (BAU) Model*: The BAU analysis is not used given the concerns raised by the Court and the existence of a methodology developed by the air quality district for the region where the Project site is located as discussed below.

2. *Compliance With Regulatory Programs Designed To Reduce Greenhouse Gas Emissions*: Compliance with State and regional programs designed to reduce GHG emissions, specifically, the First Update to the AB 32 Scoping Plan and the SCAG RTP/SCS, is addressed under Threshold 4.6-2.

3. *Local Climate Action Plan or Other "Geographically Specific Greenhouse Gas Emission Reduction Plans"*: This method is not used for the Project because a Climate Action Plan approved for tiering and applicable to the Project site does not exist.

4. *Regional Sustainable Community Strategy (SCS)*: Qualitative consistency with the 2016-2040 RTP/SCS is analyzed under Threshold 4.2-2. As stated above, the Court indicated that additional quantitative analysis is not necessarily needed.

5. *Numerical GHG Significance Thresholds*: In the analysis of impacts under Threshold 4.2-1, the County uses the SCAQMD "efficiency" threshold. SCAQMD, which has jurisdiction over the Project site, developed the "efficiency" threshold, which is similar to the Bay Area Air Quality Management District (BAAQMD) efficiency threshold that the *Newhall* Court considered favorably.

In addition, citing to the goals established by Executive Order Nos. S-3-05 and B-30-15, the Court cautioned that those EIRs taking a goal-consistency approach to CEQA significance may "in the near future" need to consider a project's effects on meeting emissions reduction targets beyond 2020. Thus, a discussion of Project consistency with the goals established by EO S-3-05 and B-30-15 is included in the analysis under Threshold 4.2-2.

The analysis under Threshold 4.2-1 discloses the extent to which the Project development scenarios increase GHG emission levels relative to existing GHG emission levels. For this quantitative analysis of the Project's potential GHG impact, the SCAQMD efficiency targets will be used to determine under threshold 4.2-1 whether the GHG emissions from the project would be significant.

An efficiency threshold evaluates impact on a per "project unit" basis, rather than as a single quantitative limit, sometimes called a "bright-line" threshold. The purpose of a bright-line threshold is to screen (filter) out smaller projects that would have minimal impact to GHG emissions. The rationale for setting the screening threshold (the bright line) is to identify the level where projects above that level would generate 90 percent of the GHG emissions for all projects of that type. Projects below the level, contributing to only 10 percent of the GHG emissions would be assumed to have less than significant GHG emissions and would not need detailed analysis (or an EIR). For the SCAQMD GHG efficiency threshold, the project unit is Service Population (SP), which is the sum of residents and employees (however, for this Project there are no employees since the Project is strictly residential). The efficiency threshold is used rather than the bright line threshold because the latter penalizes larger projects even though they may be more efficient, because of economy of scale or mixed use composition.

Plan-level thresholds are primarily applicable to General Plans and Specific Plans and are considered when evaluating large projects, often planned over a long time span. Project-level thresholds are considered for individual projects, particularly mixed-use projects, generally on one site. While the proposed project is not confined to an individual development project or site, but rather, would be implemented over years, until 2030, at various sites of between 2 and 10 acres within the Ranch Plan, this EIR evaluates the GHG impacts of the Project under the more conservative project-level threshold, and significance of impact is determined under this threshold. For purposes of informed decision-making, however, a comparison of the Project's GHG emissions to the plan level threshold is also provided.

For a plan-level analysis, the SCAQMD efficiency targets are 6.6 metric tons of carbon dioxide equivalent per service population per year ($MTCO_2e$/SP/year) for 2020 and 4.1 $MTCO_2e$/SP/year for 2035. Because the Project buildout year is 2030, the efficiency threshold used for analysis of the estimated GHG emissions is 4.93 $MTCO_2e$/SP/year for 2030, which is derived from a linear interpolation between the SCAQMD 2020 and 2035 targets. For a project-level analysis, the SCAQMD efficiency targets are 4.8 $MTCO_2e$/SP/year for 2020 and 3.0 $MTCO_2e$/SP/year for 2035. For 2030, the project buildout year, the project-level threshold is 3.6 $MTCO_2e$/SP/year.

SCAQMD developed the plan-level 2020 efficiency threshold following the same method used by BAAQMD. The BAAQMD plan level 2020 threshold, was based on the projected statewide GHG emissions "that would accommodate projected population and employment growth under trend forecast conditions, and the emission rates needed to accommodate growth while allowing for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020) (BAAQMD 2010). This value is 426,500,000 $MTCO_2e$ per year, which was the value calculated by CARB as required by AB 32 and approved in 2007. The additional data used in development of the efficiency threshold included a 2020 projected statewide population of 44,135,923 and a projected employment of 20,194,661. Dividing the GHG emissions projection by the SP of 64,330,584 resulted in the 6.6 $MTCO_2e$/year efficiency threshold. The BAAQMD stated that if a plan demonstrates it could meet this threshold, it would,

> ". . . accommodate growth in a manner that would not hinder the State's ability to achieve AB 32 goals, and thus, would be less than significant for GHG emissions and their contribution to climate change. The efficiency metric would not penalize well-planned communities that propose a large amount of development. Instead, the SP-based GHG efficiency metric acts to encourage the types of development that BAAQMD and OPR support (i.e., infill and transit-oriented development) because it tends to reduce GHG and other air pollutant emissions overall, rather than discourage large developments for being accompanied by a large mass of GHG emissions.

For a project-level analysis, the SCAQMD efficiency targets are 4.8 $MTCO_2e$/SP/year for 2020 and 3.0 $MTCO_2e$/SP/year for 2035. The 2020 project-level efficiency target was established by SCAQMD based on the AB 32-generated projections for land use sectors. SCAQMD utilized the projected 1990 GHG Land Use Sectors GHG Emissions target of 295,530,000 $MTCO_2e$ to determine the appropriate efficiency targets. The SP used for the project-level threshold uses Statewide population and projected employment for land use sources, instead of the total Statewide employment used in the BAU analysis.

The planned year for completion of the proposed Project is 2030; therefore, the following analysis uses a straight line interpolation between the 2020 project-level efficiency value of 4.8 $MTCO_2e$/SP/year and the 2035 value of 3.0 identified by SCAQMD. With its anticipated 2030 completion date, the straight line interpolation discloses a 3.60 $MTCO_2e$/SP/year efficiency target for the Project.

4.2.5 IMPACT ANALYSIS

Threshold 4.2-1

Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

All Project Development Scenarios

Short-Term Construction Impacts

Construction activities would result in the temporary generation of GHGs through worker vehicles and off-road and on-road construction equipment. As described in Section 3.0, Project Description, the timeframe for the Project phasing is 2018–2030 because construction of the Project would not commence until grading of Planning Area 3 by RMV, which is not expected to start until late 2017 or 2018. The details of phasing, selection of construction equipment, and other input parameters are described in Section 4.1, Air Quality.

Because construction activity impacts are relatively short-term, they contribute a relatively small portion of the total lifetime GHG emissions of a project. In addition, GHG emission-reduction measures for construction equipment are relatively limited. Therefore, as originally proposed by the SCAQMD, it has become current practice by lead agencies that construction emissions are amortized over a project lifetime (typically 30 years) so that GHG-reduction measures will address construction GHG emissions as part of the operational GHG-reduction strategies (SCAQMD 2008). That method is used in this analysis.

The results of the CalEEMod calculations for GHGs from Project construction of all of the units in each scenario are shown in Table 4.2-3. CalEEMod input and output detailed data are in Appendix C. The construction of the Project would result in estimated GHG emissions of 4,211 $MTCO_2e$ for Scenario 1, 5,615 $MTCO_2e$ for Scenario 2, and 8,424 $MTCO_2e$ for Scenario 3. When amortized over 30 years, the estimated construction GHG emissions are 140 $MTCO_2e$/year, 187 $MTCO_2e$/year, and 281 $MTCO_2e$/year for Scenarios 1, 2, and 3, respectively.

TABLE 4.2-3
ESTIMATED CONSTRUCTION ANNUAL GREENHOUSE GAS EMISSIONS

Year	Scenario 1 Emissions ($MTCO_2e$)	Scenario 2 Emissions ($MTCO_2e$)	Scenario 3 Emissions ($MTCO_2e$)
2018	222	296	444
2019	459	612	918
2020	569	758	1137
2021	342	455	683
2022	514	685	1028
2023	408	543	815
2024	655	873	1309
2025	570	759	1139
2026	1	1	1
2027	15	19	29
2028	213	283	425
2029	14	19	28
2030	233	311	466
Total	**4,211**	**5,615**	**8,424**
Annual Construction Emissions Amortized over 30 Years	**140**	**187**	**281**

$MTCO_2e$: metric tons of carbon dioxide equivalent
Totals may not add due to rounding.
Calculations in Appendix C.

Because construction emissions are amortized over a 30-year project lifetime, the level of significance for construction emissions related to the Project is included in the section on "Long-Term Operational Impacts", and a separate significance finding for construction emissions is not necessary.

Long-Term Operational Impacts

Operational GHG emissions are the annual GHG emissions at buildout of the Project assuming the Project is fully occupied. Operational emissions are generated from electrical and gas energy use, vehicle use, water use and wastewater treatment, solid waste disposal, and minor sources. Operational GHG emissions for the Project were calculated using CalEEMod as described in Section 4.2.2 above and in Section 4.1, Air Quality, of this EIR. Mobile source input for trip generation was taken from the Project's Traffic Impact Study located in Appendix E of this EIR.

Model inputs, which are the Project descriptive data used by CalEEMod to calculate GHG emissions, include Project-specific data for water use and CalEEMod default data for electricity, natural gas, and solid waste. The CalEEMod model includes data to calculate emissions based on Project-specific characteristics, conditions of project approval (Standard Conditions of Approval, or SCs), and mitigation measures (MMs). The model adjusts energy GHG emissions corresponding to an input based on the Project design. Project design would comply with California Building Code requirements for energy efficiency (SC GHG-1); it was assumed that, at a minimum, compliance with the 2016 California Building Code (2016 Code) would be required. Analysis by the CEC concludes that the 2016 Code would be at least 28 percent more efficient for

Title 24 electric and gas applications than the 2013 Code (CEC 2015). The model adjusts water-related GHG emissions corresponding to an input based on the Project design. Project design would comply with California Green Building Code requirements (SC GHG-2). The model also accounts for the use of recycled water for irrigation, which will be provided for all irrigation in the Ranch Plan, consistent with the Santa Margarita Water District's water conservation program which uses recycled water for landscape irrigation services.

The results of the calculations are shown in Table 4.2-4; CalEEMod data sheets are included in Appendix C of this EIR. The total operational GHG emissions for Scenario 1 at Project buildout are estimated at 4,488 $MTCO_2e$ per year. The total operational GHG emissions for Scenario 2 at Project buildout are estimated at 5,987 $MTCO_2e$ per year. The total operational GHG emissions for Scenario 3 at Project buildout are estimated at 8,977 $MTCO_2e$ per year.

TABLE 4.2-4
ESTIMATED PROJECT OPERATIONAL ANNUAL GREENHOUSE GAS EMISSIONS
(ALL PROJECT DEVELOPMENT SCENARIOS)

Source	Scenario 1		Scenario 2		Scenario 3	
	Emissions $MTCO_2e$/yr	**Percent of Total**	**Emissions $MTCO_2e$/yr**	**Percent of Total**	**Emissions $MTCO_2e$/yr**	**Percent of Total**
Area	10	0.2	13	0.2	19	0.2
Energy	496	11.1	662	11.1	993	11.1
Mobile	3,754	83.6	5,007	83.6	7,508	83.6
Solid Waste	116	2.6	155	2.6	232	2.6
Water	112	2.5	150	2.5	225	2.5
Annual GHG Emissions	**4,488**	**100**	**5,987**	**100**	**8,977**	**100**

$MTCO_2e$/yr: metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas
Calculations in Appendix C.

Table 4.2-5 shows the total estimated annual GHG emissions at buildout, which is the sum of the amortized construction emissions (from Table 4.2-3) and the operational emissions (from Table 4.2-4). For Scenario 1, total estimated annual GHG emissions of the Project would be 4,628 $MTCO_2e$/year. The estimated Scenario 1 Project service population (SP) is 1,023 residents. Table 4.2-5 shows the calculated Scenario 1 GHG efficiency to be 4.52 $MTCO_2e$/SP/year. The efficiency is calculated by dividing the annual emissions of 4,628 $MTCO_2e$/year by the projected SP of 1,023 persons.

Table 4.2-5 shows that the total estimated annual GHG emissions at buildout for Scenario 2 of the Project would be 6,174 $MTCO_2e$/year. The estimated Project SP is 1,363 residents. Table 4.2-5 shows the calculated Scenario 2 GHG efficiency to be 4.53 $MTCO_2e$/SP/year.

Table 4.2-5 shows that the total estimated annual GHG emissions for buildout for Scenario 3 of the Project would be 9,258 $MTCO_2e$/year. The estimated Project SP is 2,045 residents. Table 4.2-5 shows the calculated Scenario 3 GHG efficiency to be 4.53 $MTCO_2e$/SP/year.

As previously noted, the County evaluates the GHG efficiency of the proposed Project against both the plan-level and project level thresholds. Significance of impact is determined by

comparison with the more conservative project level efficiency threshold. The GHG efficiency for all three Project development scenarios is less than the interpolated 2030 plan-level threshold of 4.93 $MTCO_2e$/SP/year but is greater than the project-level threshold of 3.60 $MTCO_2e$/SP/year. As discussed above, the 2030 thresholds used in this analysis are calculated by linear interpolation; that is, the threshold decreases by an equal amount each year between 2020 and 2035.

Although GHG emissions would be less than the plan-level threshold, the projected emissions would exceed the project-level threshold; therefore, the impact is considered to be significant.

TABLE 4.2-5
ESTIMATED TOTAL ANNUAL GREENHOUSE GAS EMISSIONS

Source	Scenario 1 Emissions $MTCO_2e$/yr	Scenario 2 Emissions $MTCO_2e$/yr	Scenario 3 Emissions $MTCO_2e$/yr
Construction (amortized) (from Table 4.2-3)	140	187	281
Operations (from Table 4.2-4)	4,488	5,987	8,977
Total Annual GHG Emissions	**4,628**	**6,174**	**9,258**
Service population	1,023	1,363	2,045
GHG efficiency ($MTCO_2e$/SP/yr)	**4.52**	**4.53**	**4.53**
Plan-level Significance threshold[a]	***4.93***	***4.93***	***4.93***
Exceed threshold?	***No***	***No***	***No***
Project-level Significance threshold[a]	***3.60***	***3.60***	***3.60***
Exceed threshold?	***Yes***	***Yes***	***Yes***

$MTCO_2e$/yr: metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas; $MTCO_2e$/SP/yr: metric tons of carbon dioxide equivalent per service population per year; SCAQMD: South Coast Air Quality Management District

[a] Threshold for 2030 interpolated from recommended values for 2020 and 2035 (SCAQMD 2010)

Calculations provided in Appendix C.

It is acknowledged that additional GHG reduction measures are technically feasible, for example the installation of low-carbon on-site energy generation, such as solar photovoltaics (PV) panels. MM GHG-1 requires the use of solar to heat any pools associated with the Affordable Housing development. However, the development of affordable housing is economically difficult and is typically only realized with incentives, such as land donations, grants, and density bonuses. Even with these incentives, it has been difficult for many jurisdictions to meet affordable housing requirements. Therefore, given the potential additional costs of GHG reduction measures, the uncertainty of future costs of development (e.g. added costs of 2019 building codes for sites

developed in 2020-2030), and, when considering the solar energy generation required to provide a substantial reduction in the GHG emissions, and the size constraints of each site, additional GHG reduction measures are not likely to be feasible if the Project is to be realized. Further, as discussed below in Section 4.2.7, mitigation of the Project's estimated GHG emissions to a level below significance is also determined to be infeasible, due to the sheer amount of solar energy that would need to be generated, and uncertainties as to whether those GHG savings can be realized.

Impact Conclusion: *GHG emissions for all three Project development scenarios would exceed the project-level threshold; therefore, for Threshold 4.2-1, the Project would have a significant and unavoidable impact on the environment. Mitigation measures to reduce the impact to less than significant are not feasible.*

No Project Alternative

The No Project Alternative assumes that no additional Affordable Housing units would be provided in the Ranch Plan Planned Community. The property offered for Affordable Housing pursuant to the Affordable Housing Implementation Agreement (AHIA) would be returned to Rancho Mission Viejo; however, no additional development beyond the approvals provided in the Ranch Plan would be allowed. As such, no construction or operational GHG emissions associated with the AHIA would occur.

Impact Conclusion: *For Threshold 4.2-1, there would be no GHG emissions associated with the No Project Alternative. There would be no impact on the environment. No mitigation is required.*

Threshold 4.2-2

Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

All Project Development Scenarios

Consistency with Assembly Bill 32

The California Legislature adopted the public policy position that global warming is "a serious threat to the economic well-being, public health, natural resources, and the environment of California" (*California Health and Safety Code,* Section 38501). Further, the State Legislature has determined that:

> The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra Nevada snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems.

These public policy statements became law with the enactment of AB 32 in September 2006. AB 32 is now codified as Sections 38500–38599 of the *California Health and Safety Code*. Thus, the principal State plan and policy adopted for the purpose of reducing GHG emissions is AB 32. The quantitative goal of AB 32 is to reduce statewide GHG emissions to 1990 levels by the year 2020. Statewide plans and regulations, such as GHG emissions standards for vehicles and the Low Carbon Fuel Standard, are being implemented, but compliance by individual projects is not addressed. Because it is neither required nor feasible to implement these plans at the Project level, the Project would not conflict with these plans and regulations.

AB 32 also implemented the policy statement of Executive Order S-3-05 that called for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. As described in Section 4.2.2, actions to achieve these reductions are specified in CARB's Climate Change Scoping Plan. The current scoping plan is the First Update, adopted in 2014. As previously described, the First Update identifies nine sectors and corresponding sector-specific actions. The Lead Agencies identified for these actions are almost exclusively State agencies, including CARB, the CEC, the CPUC, the California Department of Transportation (Caltrans), and many others. One action is shared by Caltrans and regional transportation agencies. Because responsibility for these actions is not at the Project level, the Project would not conflict with goals and actions specified in the First Update.

State regulations adopted for the purpose of reducing GHG emissions in support of AB 32 goals that are directly applicable to the Project include (1) California's Title 24, Part 6 Energy Efficiency Standards for Residential and Nonresidential Buildings and (2) California's Title 24, Part 11 California Green Building Standards Code (CALGreen Code). SC GHG-1 requires Project compliance with the Title 24, Part 6 Energy Efficiency Standards; SC GHG-2 requires compliance with the CALGreen Code. Therefore, the proposed Project would be consistent with and not conflict with these regulations (SC GHG-2).

Consistency with the Regional Transportation Plan/Sustainable Communities Strategy

As described above, SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. SB 375 is being addressed at the State and regional levels, and the principles of SB 375 are incorporated in SCAG's adopted 2012–2035 RTP/SCS and Draft 2016–2040 RTP/SCS. SB 375 encourages compact, complete, and efficient communities for the future. The proposed Project would not build housing in areas that would be otherwise undeveloped, requiring extended travel distances for work and shopping. The housing would be part of the planned RMV development scheme that includes a mix of land use types, including residential, retail, office, and business park (see Section 2.6.1 regarding the development approved for the Ranch Plan), in each Planning Area. This mix results in efficient, reduced travel distances. Therefore, the Project would not conflict with SB 375.

The Draft 2016 RTP/SCS addresses affordable housing in many aspects, including the following:

> In our vision for the region in 2040, many communities are more compact and connected . . . Housing across the region is sufficient to meet the demands of a growing population with shifting priorities and desires, and there are more affordable homes for all segments of society.

> SCAG developed mitigation measures include, but are not limited to, coordinate with member cities and counties to encourage that general plans consider and reflect as appropriate RTP/SCS policies and strategies. Other measures include infill, mixed-use, higher density and other sustainable development, and work with partners to identify incentives to support the creation of affordable housing in mixed-use zones.

The Project would be consistent with the Draft 2016 RTP/SCS vision and objectives because it would provide affordable homes in four planning areas within the overall Ranch Plan area; therefore, because of the mix of uses that will be developed pursuant to the Ranch Plan for practical purposes, the Affordable Housing units would be developed in a mixed-use context.[2]

As described in Section 4.6, Population and Housing, Scenarios 1, 2, and 3 would be consistent with the development levels assumed in the Orange County Projections 2014 (OCP-2014). The OCP-2014 dataset is used in the 2016–2040 RTP/SCS. Therefore, the Project would be consistent with the 2016–2040 RTP/SCS projections for future growth in the unincorporated County region.

Consistency with Executive Orders S-3-05 and B-30-15

Governor Schwarzenegger's Executive Order S-3-05, as previously discussed, sets a goal of reducing GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. AB 32 was enacted after Executive Order S-3-05 was signed. The Legislature declined to include the Executive Order's 2050 goal in AB 32, and again declined to use the Executive Order's goal in adopting SB 375. Executive Order B-30-15, as previously discussed, sets a new interim statewide emission reduction target goal of reducing greenhouse gas emissions to 40 percent below 1990 levels by 2030. This measure is intended to ensure California meets the goal set out in Executive Order S-3-50 of reducing GHG emissions to 80 percent below 1990 levels by 2050. Like Executive Order S-3-05, neither CARB nor the legislature have incorporated the target set forth in Executive Order B-30-15 in any implementing legislation or applicable plans. However, SB 350 was signed into law and, as noted above, it requires the State to double energy efficiency savings in electricity and natural gas by 2030 and raises the Renewables Portfolio Standard (RPS) so that half of the state's electricity must be procured from renewable sources by 2030. Although the 2020 target is the core of AB 32 (discussed above) and the only legislatively adopted reduction target, the 2030 and 2050 targets remain the goals of Executive Orders S-3-05 and B-30-15.

While Executive Orders S-13-08 and B-30-15 declare executive goals, they do not establish any binding mandates. Although legal questions exist whether the Executive Orders impose requirements that must be addressed through CEQA, this EIR nonetheless considers how the Project demonstrates consistency with Executive Orders S-3-05 and B-30-15, bearing in mind that those Executive Orders express goals and not mandates.

Additional GHG-reducing control measures are likely to be introduced and implemented over time, and some of these measures are likely to reduce the Project's GHG emissions. The Project will be a phased development over an approximate 2017-2030 time span that will be subject to

[2] As discussed in Section 2.6.1, the Ranch Plan has been approved for 14,000 dwelling units (which are separate from the Affordable Housing dwelling units), 3,480,000 square feet of Urban Activity Center (UAC), 500,000 square feet of Neighborhood Center, and 1,220,000 square feet of business park.

the then-existing requirements for GHG emissions reductions, including those that may be set forth to ensure compliance with Executive Orders S-3-05 and B-30-15, and will use then-existing technologies employed to achieve deep reductions in GHG emissions. Potential measures may include building code revisions that require designing buildings so that they are "zero net energy" (i.e., they produce as much energy as they consume by using a combination of energy efficiency and low-carbon on-site generation, such as solar PV rooftops).

The Project addresses GHG emissions reductions beyond 2020 by calculating operational GHG emissions for 2030 and using corresponding GHG efficiency thresholds calculated for 2030 from SCAQMD-recommended values for 2020 and 2035.

Because the Project will comply with the requirements of a regional Sustainable Communities Strategy, which CARB has recognized as essential to achieve 2050 goals, the Project will not impede the achievement of Executive Order S-3-05's or Executive Order B-30-15's goals.

Impact Conclusion: *For Threshold 4.2-2, the Project would be consistent with and would not conflict with State and Regional regulations and policies adopted for the purpose of reducing GHG emissions. There would be no impact; no mitigation is required.*

No Project Alternative

The No Project Alternative assumes that no additional affordable housing pursuant to the AHIA would be provided in the Ranch Plan Planned Community. The property offered for Affordable Housing pursuant to the AHIA would be returned to Rancho Mission Viejo; however, no additional development beyond the approvals provided in the Ranch Plan would be allowed. As such, no GHG emissions would occur.

Impact Conclusion: *For Threshold 4.2-2, the No Project Alternative would be consistent with and would not conflict with regulations and policies adopted for the purpose of reducing GHG emissions. There would be no impact; no mitigation is required.*

4.2.6 CUMULATIVE IMPACTS

As discussed in Section 4.2.4, global climate change is, by its very nature, a cumulative impact. GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). No single project could generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts.

As analyzed under Threshold 4.2-1, the Project's GHG emissions would have a significant and unavoidable impact on the environment. As analyzed under Threshold 4.2-2, the Project would be consistent with and would not conflict with State and regional regulations and policies adopted for the purpose of reducing GHG emissions.

As noted above, it is accepted as very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change; therefore, any impact would be considered on a cumulative basis. As described above, GHG emissions for each of the three analyzed Project development scenarios would exceed the 2030 SCAQMD-recommended project -level efficiency threshold; the cumulative impact would be significant and unavoidable.

4.2.7 MITIGATION PROGRAM

The Mitigation Program contains both Standard Conditions and a recommended Mitigation Measure. When developing the Mitigation Program an assessment of the feasibility of additional mitigation approaches was conducted to evaluate whether any additional recommended measure could be reasonably implemented. As noted above, providing affordable housing is economically difficult and is typically only realized with incentives. Even with incentives, it has been difficult for many jurisdictions to meet affordable housing requirements. Given the potential additional costs of GHG reduction measures, the uncertainty of future costs of development, and, when considering substantial solar energy generation required to provide a substantial reduction in the GHG emissions, the size constraints of each site, additional GHG reduction measures are not likely to be reasonable if the Project is to be realized. The following discussion provides an overview of the feasibility of additional mitigation approaches for the Project's estimated emissions, followed by the required Standard Conditions and proposed Mitigation Measure.

Feasibility of Mitigation

Standard Conditions and Requirements

As discussed below, the Project includes several standard conditions that have the effect of reducing the Project's GHG emissions. For example, the Project design would be required to comply with California Building Code requirements, which incorporates the applicable Title 24, Part 6 Energy Efficiency Standards for Residential and Nonresidential Buildings (SC GHG-1). It was assumed that 2016 codes, at a minimum, would be required. The analysis by the California Energy Commission (CEC) concludes that the 2016 Code would be at least 28 percent more efficient for Title 24 electric and gas applications than the 2013 Code (CEC 2015). Additionally, the applicable Title 24, Part 11 California Green Building Standards (SC GHG-2), requiring water conservation measures, would apply. Given that Project construction will extend over multiple years, updated building codes with potentially more stringent requirements may be in place at the time that many of the Affordable Housing sites are being developed; this would, therefore, reduce the overall emissions associated with the Project compared to the analysis in this EIR, which bases the impacts on the standards required by the 2016 California Building Code.

CAPCOA-Formulated Measures

An evaluation was done to assess whether there are additional feasible mitigation measures which could be applied to the Project to reduce the impacts to less than significant levels. As part of this effort, the *Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, prepared by the California Air Pollution Control Officers Association (CAPCOA) in 2010, was used as guidance

on the type of project-level mitigation of GHGs that would be applicable to a multi-family residential project. Many of the feasible CAPCOA recommendations have been incorporated into the California Building Code or County Code requirements, and, therefore, are already applicable to the Project. The CAPCOA measures are presented in nine categories, as discussed below:

Energy: Energy measures are grouped by building energy use, lighting, and alternative energy generation. For building energy use, the primary energy measure is to exceed California Building Code Title 24 requirements, which was feasible and appropriate relative to the 2008 Code when the CAPCOA guidance was prepared. With the energy efficiency requirement in 2013 and 2016 Codes, exceeding Code requirements has and will become costly and improvements would yield diminishing GHG emissions reductions. Future Codes are likely to require or approach zero net energy and exceeding the code would lose meaning. The recommended energy measures for installing energy efficient appliances has been incorporated into the Project as MM GHG-2. The recommended measure for using high efficiency outdoor lighting has been incorporated into the Project as MM GHG-3.

With respect to alternative energy sources, MM GHG-1 would require that swimming pools be heated by solar energy sources. The feasibility of additional on-site low-carbon energy generation with solar photovoltaic (PV) panels, was evaluated as a method of reducing the net emissions to a level considered less than significant. Since the total number of units would vary dependent on the reliance on the Public-Sector Alternative and the Project would be constructed on multiple building sites, the analysis for the required amount of low-carbon energy that would need to be generated on site has been calculated based on a per unit basis. This also allows for variations in the size of the lots for each Subarea. The analysis estimates that approximately 6.4 kilowatts (kW) of solar energy generation per dwelling unit would be required to reduce the GHG impact to less than significant. At an estimated cost of $4,250/kW, this equates to approximately $27,000 per dwelling unit or $2,000,000 for a 75-unit building (Go Solar California 2016). In addition to adding cost to the Project, which may eliminate the feasibility of the development being an affordable housing project, there would be logistical issues associated with implementing these measures. Approximately 60 to 100 square feet of space would be required for the PV panels per kW generated. Based on the calculation of kW per unit, a 75-unit building would require about 28,600 to 47,700 square feet for the panels, which would certainly be larger than the available roof area. As a result, additional ground area with the required solar exposure would be needed for the solar panels and associated collection and transmission infrastructure which, given the density and location of each Project, may not be available (Go Solar California 2016). Further, this quantity of solar installation would generate approximately 2.9 times the anticipated energy use of the Project. The sale of the energy would be required to realize the GHG "savings" or offset associated with installation of the low-carbon on-site energy generation. Therefore, there would need to be provisions to sell the excess energy (approximately 495,000 kW hours per year for a 75-unit building or more than 7 million kWh per year for the 1,100-unit Scenario 3) back to San Diego Gas & Electric (SDG&E) for distribution to other users. However, at this time, SDG&E has a cap on their net energy metering program and the sum of approved installations and applications in the queue exceed the cap (SDG&E 2016). Therefore, incorporation of these measures would be speculative to assume that this would be permitted and could be done in perpetuity. This approach to mitigation was found not to be feasible based on the uncertainty of whether the solar component could be constructed on site and the uncertainty of whether the excess energy could be sold to SDG&E.

Transportation: Land use/location measures related to the site location cannot be varied for the Project. Vehicle trip generation rates associated with age-qualified housing have already been assumed as part of the Project analysis. MM GHG-4 would encourage the use of alternative-fueled vehicles by providing preferred parking for these vehicles. Transportation measures related to neighborhood enhancements, parking policy/pricing, commute trip reduction, transit system improvements, and road pricing/management are not applicable to the Project.

Though the Ranch Plan area is not served by regional transit service, on June 13, 2016, the Orange County Transportation Authority (OCTA) approved a grant to provide funding for a program that would serve Ladera Ranch and the Ranch Plan as part of the Community-Based Transit/Circulators Program, which is funded by OCTA's Measure M2 Project V program. The service will be administered by Rancho Transportation Management Association (TMA) under the service trademark of RanchRide through a public-private partnership with the County of Orange. A pilot program was operated in 2015 to clarify the needs for the communities, emphasizing a dynamic level of service. The OCTA Measure M2 Project V provides funds for seven years, beginning in the 4th quarter of 2016, extending through 2023. Funding for RanchRide is also derived from a portion of the homeowners' association fees collected by the Rancho Mission Viejo Master Maintenance Corporation. Services will be paid for on an "as-used" basis Though this program is expected to continue serving the community, no GHG savings were assumed because this service is not required as part of approvals for Ladera Ranch or the Ranch Plan. As the program develops, more information schedules and number of boardings will become available.

Water: CAPCOA water measures are divided between water supply and water use. The water supply measure to use reclaimed water has been incorporated into the infrastructure framework of the Ranch Plan through the applicable Master Area Plans and Subarea Plans and would be available for use by the Project and corresponding GHG emissions reductions are included in the analysis. Water use measures, including low-flow water fixtures and water-efficient landscape irrigation systems are included in the CalGREEN Code and the County Code. These features are therefore included in the Project and corresponding GHG emissions reductions are included in the analysis.

Area Landscaping: MM GHG-5 would encourage the use of electrical landscaping equipment to reduce GHG emissions from gas-powered equipment.

Solid Waste: CAPCOA-recommended measures to institute long-term recycling and to recycle construction materials are required by State and local regulations. GHG reductions for long-term recycling are included in the Project analysis.

Vegetation: Measures for urban tree planting and creation of vegetated open space are not applicable to the Project because the sites would be dedicated for the purpose of building affordable housing at 25 units per net acre. It should be pointed out that the Project is being constructed within the context of the Ranch Plan, which provides for 16,942 gross acres of open space and 5,873 acres for development. The development acreage for the Ranch Plan is inclusive of the Affordable Housing sites.

Construction: MM AQ-1 implements the recommended measure to use electric power for construction equipment. Measures for limiting idling beyond regulation requirements, off-read

vehicle plans, and construction vehicle tracking systems are not applicable to small, single-site projects.

Miscellaneous: Included measures such as carbon sequestration, off-site mitigation, agricultural practices, and purchasing are not applicable to the Project.

General Plans: The CAPCOA recommendation that General Plan measures such as establishing a local farmer's market or community gardens be identified are not applicable to the Project. The Project sites are designated for affordable housing; however, it should be noted that such features are being incorporated into the Ranch Plan and would be available to residents of the Project.

Standard Conditions and Requirements

The following Standard Conditions of Approval (SCs) have been identified that would serve to minimize or avoid potential impacts. These measures would apply to the development of the Project and would be implemented when specific development plans for the various Affordable Housing sites are proposed:

SC GHG-1 Projects shall be designed in accordance with the applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (*California Code of Regulations* [CCR], Title 24, Part 6). These standards are updated, nominally every three years, to incorporate improved energy efficiency technologies and methods.

SC GHG-2 Projects shall be designed in accordance with the applicable California Green Building Standards (CALGreen) Code (24 CCR 11).

Mitigation Measures

MM GHG-1 Prior to the issuance of each building permit that would include a swimming pool, the applicant shall obtain the approval of the Manager, Permit Services of plans and specifications demonstrating that swimming pools would be heated by solar energy sources.

4.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

GHG emissions impacts would be significant and unavoidable.

4.2.9 REFERENCES

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4.3 HYDROLOGY AND WATER QUALITY

4.3.1 REGULATORY SETTING

Federal

Clean Water Act

In 1972, the Federal Water Pollution Control Act (Clean Water Act or CWA) was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants to "waters of the U.S."[1] from any point source.[2] Final regulations regarding storm water discharges were issued on November 16, 1990, and require that municipal separate storm sewer system (MS4) discharges and industrial (including construction) storm water discharges to surface waters be regulated by an NPDES permit. MS4s are a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), and are owned or operated by a public body that has jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes. MS4s are designated or used for collecting or conveying storm water only (i.e., not wastewater or combined sewage). NPDES permit requirements relevant to the Project are discussed later in this section.

Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, commercial fishing) and the water quality criteria necessary to support those uses. Water quality criteria are set concentrations or levels of constituents (e.g., lead, suspended sediment, and fecal coliform bacteria) or narrative statements that represent the quality of water that support a particular use. When designated beneficial uses of a particular water body are being compromised due to changes in water quality, Section 303(d) of the Clean Water Act requires identifying and listing that water body as "impaired" and, under Section 303(d) of the Clean Water Act, are placed on a list of impaired waters for which a total maximum daily load (TMDL) must be developed for the impairing pollutant(s).

For point sources, including storm water, the load allocation is referred to as a "Wasteload Allocation", whereas for non-point sources, the allocation is referred to simply as a "Load Allocation". Once established, the TMDL allocates the loads (or concentrations) among current and future pollutant sources to the water body.

The CWA requires that the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) conduct a Water Quality Assessment that addresses the condition of its surface waters (required in Section 305(b) of the CWA) and that provides a list of impaired waters (required in Section 303(d) of the CWA); this Water Quality Assessment is then submitted to the U.S. Environmental Protection Agency (USEPA) for review and approval. The Water Quality Assessment integrates the requirements of Sections 305(b) and 303(d) of the CWA, and is referred to as the "Integrated Report". The 2012 Integrated Report and updated

[1] "Waters of the U.S." include all waters that have, are, or may be used in interstate or foreign commerce (including sightseeing or hunting), including all waters subject to the ebb and flow of the tide and all interstate waters, including interstate wetlands (*Code of Federal Regulations,* Title 33, Section 328.3).

[2] Point sources are discrete water conveyances, such as pipes or man-made ditches.

303(d) list was approved by the SWRCB on April 8, 2015, and the USEPA approved the Report on July 30, 2015 (SWRCB 2015).

State/Regional

California Porter-Cologne Act

California's Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act) grants the SWRCB and the RWQCBs the power to protect surface water and groundwater quality and is the primary vehicle for implementing California's responsibilities under the CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies; to regulate discharges of waste to surface and groundwater; to regulate waste disposal sites; and to require cleanup of discharges of hazardous materials and other pollutants.

Each RWQCB must formulate and adopt a Water Quality Control Plan (known as a Basin Plan) for its region. The Basin Plan must conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State Water Policy. The Basin Plan establishes beneficial uses for surface and groundwater in the region and sets forth narrative and numeric water quality standards to protect those beneficial uses.

The RWQCBs are also authorized to enforce discharge limitations; to take actions to prevent violations of these limitations from occurring; and to conduct investigations to determine the status of the quality of any of the waters of the state. Civil and criminal penalties are also applicable to persons who violate the requirements of the Porter-Cologne Act or any SWRCB/RWQCB orders.

California Toxics Rule

The Clean Water Act also requires states to adopt water quality standards for receiving water bodies and to have those standards approved by the U.S Environmental Protection Agency (USEPA). Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), along with the water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations, levels of constituents, or narrative statements that represent the quality of water that supports a particular use. Because the State of California was unable to develop these standards for priority toxic pollutants, the USEPA promulgated the California Toxics Rule (CTR) in 1992 (*Code of Federal Regulations* [CFR], Title 40, Section 131.38), which fills this gap.

National Pollutant Discharge Elimination System Program

As discussed above, the NPDES permit program stems from the federal Clean Water Act. In the State of California, this program is administered by the RWQCBs. There are nine RWQCBs in the State of California. These boards have the mandate to develop and enforce water quality objectives and implementation plans within their regions. If discharges from industrial, municipal, and other facilities go directly to surface waters, those project applicants must obtain permits from the applicable RWQCB. An individual NPDES permit is specifically tailored to a facility. A general NPDES permit covers multiple facilities within a specific activity category such as construction activities. The SWRCB's NPDES General Permit for Storm Water Discharges Associated with Construction Activity is referred to as the "Construction General Permit". As

discussed under below, the Construction General Permit has requirements, such as preparation of a Storm Water Pollution Prevention Plan (SWPPP) with identification of Best Management Practices that minimize potential water quality risks during construction. The Project is located within the jurisdiction of the San Diego RWQCB (Region 9).

Municipal Storm Water Permitting

The San Diego RWQCB regulates discharges from Phase I (medium and large) municipal separate storm sewer systems under the Regional MS4 Permit. The Regional MS4 Permit covers 39 municipal, County government, and special district entities (collectively referred to as "Co-Permittees") located in San Diego County, southern Orange County, and southwestern Riverside County who own and operate large MS4s that discharge storm water (wet weather) runoff and non-storm water (dry weather) runoff to surface waters throughout this region. The MS4 Permit issued by the San Diego RWQCB to the County of Orange, the incorporated cities of Orange County, and the Orange County Flood Control District (Order No. R9-2009-0002, NPDES No. CAS0108740) establishes hydromodification criteria. The South Orange County Hydromodification Management Plan (HMP) was prepared to address these requirements, which provided for some exemptions pertaining to hydromodification. The County of Orange reached agreement with the San Diego RWQCB staff with regards to exemptions. The San Diego RWCQB amended the Regional MS4 Permit (Order No. R9-2015-0001) on February 11, 2015, to extend coverage to the Orange County Co-Permittees. Order No. R9-2015-0100 was adopted on November 18, 2015, amending the Regional MS4 Permit to extend coverage to the Riverside County co-permittees (San Diego RWQCB 2016; RBF 2015).

County of Orange

Drainage Area Management Plan

The Orange County Drainage Area Management Plan (DAMP) is the primary policy, planning and implementation document for municipal NPDES Storm Water Permit compliance. The DAMP's policy and planning areas have been separated as a method to focus on the prescriptive permit requirements and provide greater Permittee accountability, while maintaining the beneficial and synergistic cohesion of a countywide program. As a result of this separation, the DAMP now includes Local Implementation Plans (LIPs, which are known as Jurisdictional Urban Runoff Management Programs [JURMP] in the San Diego RWQCB Permit). The LIPs were created to assist each Permittee in implementing an increasingly complex program within its jurisdiction while maintaining a single policy document that addresses two sets of permit requirements (OC Public Works 2016).

4.3.2 METHODOLOGY

As discussed in Section 3.4.4, Alternative California Environmental Quality Act Baseline, the analysis assumes that Affordable Housing sites would be graded prior to being provided to the County. As such, the improvements for drainage and water quality required as part of the Master Area Plan and Subarea Plans were assumed to be in place before the Affordable Housing sites become available to the County or a developer, if the Private-Sector Alternative is utilized. The analysis in this section utilizes information from the *Conceptual Water Quality Management Plan* (Conceptual WQMP) prepared for the Ranch Plan Planned Community (the Ranch Plan) and the

WQMP prepared for Planning Areas 3 and 4, which contain designed Affordable Housing sites. Background information on applicable requirements were identified through Internet research including the websites for the SWRCB, the San Diego RWQCB, and the County of Orange.

4.3.3 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

Drainage

The Ranch Plan is located within the regional watersheds of San Juan Creek and the Western San Mateo Creek of Southern Orange County. The majority of the Affordable Housing sites would be in the San Juan Creek Watershed—only the Affordable Housing site in Planning Area 8 would be in the Western San Mateo Creek Watershed. These watersheds extend upstream from the Ranch Plan boundary to the Cleveland National Forest and downstream to the Pacific Ocean. The boundaries for these regional watersheds include 176 square miles and 139 square miles of tributary drainage respectively for San Juan Creek and San Mateo Creek, respectively.

The preliminary storm drainage system for the entire Ranch Plan was evaluated in the *Comprehensive Regional Stormwater Plan for the Ranch Plan Planned Community Runoff Management Plan* (ROMP), prepared by PACE and approved by the County of Orange on April 16, 2013. The ROMP has multiple intended functions as a watershed planning and guidance document for future development occurring within the Ranch Plan; the ROMP will ensure adequate storm water infrastructure is provided and the long-term protection of the water resources through mitigation of development impacts. The information contained in the ROMP can provide different types of guidance and benefits depending on the uses.

A component of the Master Area Plans and Subarea Plans required for each Planning Area in the Ranch Plan is the identification of urban drainage systems, which provide (1) storm water management, (2) flood protection, (3) water quality treatment, and (4) hydrologic mitigation. This includes a storm drain system associated with the streets as the initial urban storm water collection and conveyance system point. All storm drains outlet into a water quality and hydrologic mitigation basin that is located at the interior of the Project site and ultimately outlet from the development boundary in conformance with County of Orange standards.

Water Quality

The Water Quality Control Plan for the San Diego Basin (Basin Plan) designates beneficial uses for water bodies in the San Diego Region, and establishes water quality objectives and implementation plans to protect those beneficial uses. Table 4.3-1 identifies the beneficial uses of the individual water bodies located in the Ranch Plan area that are listed in the San Diego Basin Plan. A "●" indicates an existing beneficial use that was actually attained in the surface or ground water. A "+" indicates that the water body has been exempted by the Regional Board from the municipal use designation under the terms and conditions of State Board Resolution No. 88-63, Sources of Drinking Water Policy.

TABLE 4.3-1
BENEFICIAL USES OF RECEIVING WATERS

Water Body	Beneficial Uses								
	MUN	**AGR**	**IND**	**REC1**	**REC2**	**WARM**	**COLD**	**WILD**	**RARE**
San Juan Creek*	+	●	●	●	●	●	●	●	
Verdugo Canyon	+	●	●	●	●	●	●	●	
Trampas Canyon	+	●	●	●	●	●	●	●	
Cañada Gobernadora	+	●	●	●	●	●	●	●	
Cañada Chiquita	+	●	●	●	●	●	●	●	
San Mateo Creek	+			●	●	●		●	●
Cristianitos Creek	+			●	●	●		●	
Gabino Creek	+			●	●	●		●	
La Paz Canyon	+			●	●	●		●	
Blind Canyon	+			●	●	●		●	
Talega Canyon	+			●	●	●		●	

MUN: Municipal and Domestic Supply; REC2: Non-Contact Water Recreation; AGR: Agricultural Supply; WARM: Warm Freshwater Habitat; IND: Industrial Service Supply; COLD: Cold Freshwater Habitat; REC1: Contact Water Recreation; WILD: Wildlife Habitat; RARE: Rare, Threatened or Endangered Species; ●: Existing beneficial use; +: Excepted from MUN designation

* San Juan Creek, is designated as water quality limited segments for indicator bacteria pursuant to Clean Water Act section 303(d). Total Maximum Daily Loads have been adopted to address these impairments.

Source: SDRWQCB 2011.

As discussed above, the CWA requires that the SWRCB and RWQCBs to prepare a list of impaired waters, which is known as the Section 303(d) list. Table 4.3-2 below summarizes the pollutants affecting the water quality limited segments downstream of the proposed Project, their TMDL requirement status, and potential pollutant sources, as provided on the current 303(d) list.

TABLE 4.3-2
SUMMARY OF 303(D) LIST FOR THE PROJECT RECEIVING WATER BODIES

Water Body	Pollutant	Extent	TMDL Completion Date or Expected Completion Date
Pacific Ocean Shoreline, Lower San Juan HSA	Bacteria Indicators	1.2 miles	2021
San Juan Creek (mouth)	Bacteria Indicators	1 mile and at mouth (6.3 acres)	2008
San Juan Creek	Bacteria Indicators	1 mile	2019
San Juan Creek	DDE (Dichlorodiphenyldi-chloroethylene)	1 mile	2019
San Juan Creek	Phosphorus	1 mile	2021
San Juan Creek	Selenium	1 mile	2021
San Juan Creek	Total Nitrogen	1 mile	2021
San Juan Creek	Toxicity	1 mile	2021

TMDL: total maximum daily load; HSA: Hydrologic Sub-Area
Source: SWRCB 2011

The Conceptual WQMP prepared for the Ranch Plan outlines the site design, source control, and treatment systems that would provide an effective treatment for most pollutants associated with urbanization.[3] The Conceptual WQMP identified the pollutants of concern as those pollutants that are anticipated or potentially could be generated based on past and proposed land uses that may potentially impair beneficial uses in the receiving water by adversely affecting receiving water quality or Endangered species. Potential pollutants of concern include the following:

- Pathogens (bacteria and viruses)
- Toxic organic compounds
- Sediment (total suspended solids)
- Nutrients
- Heavy metals (aluminum, cadmium, copper, lead, and zinc)
- Hydrocarbons (oil and grease, polycyclic aromatic hydrocarbons [PAHs])
- Pesticides
- Trash and debris
- Chlorine

[3] FEIR 589 identified the majority of human sources of pathogen indicators in the Ranch Plan will be effectively controlled with a modern sanitary sewer system. The primary additional source of pathogen indicators introduced by the Ranch Plan development are expected to be associated with pet wastes, which will be managed through source and treatment controls. However, the finding of FEIR 589 was because neither existing nor post-development levels are likely to meet REC-1 standards for fecal coliform on a consistent basis there could be a potential significant impact. However, it should be noted, USEPA, in an evaluation of Recreational Water Quality Criteria, is now recognizing that non-human sources of indicator bacteria represent a lower risk of human health impacts. This evaluation is further discussed in Section 4.3.6, Cumulative Impacts.

In addition, a Conceptual WQMP is required as part of the Master Area Plan process. The Conceptual WQMP for the Master Area Plan takes a multi-tiered approach for protection of groundwater quality including the following: (1) site-design and source-control Best Management Practices (BMPs) to prevent the discharge of pollutants to the maximum extent practicable; (2) treatment-control BMPs to allow infiltration where there is at least a ten-foot separation to groundwater; and (3) where infiltration is proposed, design of water quality treatment facility sized to meet the MS4 Permit requirements. The Conceptual WQMP addresses both dry-weather and wet-weather water quality concerns.

4.3.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist, the Project would result in a significant impact to hydrology and water quality if it would:

Threshold 4.3-1 Violate any water quality standards or waste discharge requirements.

Threshold 4.3-2 Otherwise substantially degrade water quality.

Threshold 4.3-3 Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

As discussed in Section 2.3.1, Issues to be Addressed in the Environmental Impact Report, the threshold pertaining to groundwater supplies, drainage patterns, flood hazard were focused out of the EIR at the time the Notice of Preparation (NOP) was issued because the Project was assessed as having "No Impact" or "Less Than Significant Impact" on these issues. These findings were predominately due to the fact that the Affordable Housing sites would be provided as graded building pads and RMV is required to implement watershed management measures as part of the Ranch Plan. Though Initial Study prepared with the NOP concludes that significant Project impacts are not anticipated for the above listed thresholds, the County chose to provide more detailed information in this EIR.

4.3.5 IMPACT ANALYSIS

Thresholds 4.3-1 and 4.3-2

Would the Project violate any water quality standards or waste discharge requirements?

Would the Project otherwise substantially degrade water quality?

All Project Development Scenarios

The nature of the development and potential impact on water quality would be the same for all three development scenarios. Though the number of Affordable Housing sites would be correlated to the number of units provided, the nature of the impacts would be the same for all three scenarios. As previously discussed in Section 3.4.4, the Affordable Housing Implementation Agreement (AHIA) requires Rancho Mission Viejo (RMV) to provide the County with graded sites

for each of the Affordable Housing parcels. The impacts associated with the Affordable Housing site preparation are addressed through Final Environmental Impact Report (FEIR) 589 and would have the necessary California Environmental Quality Act (CEQA) and regulatory permit compliance prior to issuance of a grading permit.

Construction-Related (Short-Term) Water Quality

Though the Affordable Housing sites would be graded and key drainage and water quality infrastructure would be implemented as part of the Ranch Plan, there may still be the need to do some minor grading on the Affordable Housing sites to accommodate the final design. It is estimated that approximately 10,000 cubic yards of cut and fill would be required for each of the Affordable Housing sites. Grading is assumed to be balanced on site.

The potential impacts of construction activities, construction materials, and non-storm water runoff on water quality during the construction phase would primarily be due to sediment (total suspended solids [TSS] and turbidity) and certain non-sediment-related pollutants. Construction-related activities that are primarily responsible for sediment releases are related to exposing previously stabilized soils to potential mobilization by rainfall/runoff and wind. Environmental factors that affect erosion include topographic, soil, and rainfall characteristics. Non-sediment-related pollutants that are also of concern during construction relate to construction materials and non-storm water flows and include construction materials (e.g., concrete, paint, and stucco); chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment; and concrete-related pollutants.

The SWRCB's NPDES General Permit for Storm Water Discharges Associated with Construction Activity is referred to as the "Construction General Permit". Construction impacts due to Affordable Housing development would be minimized through compliance with the Construction General Permit, which requires completing a construction site risk assessment to determine appropriate coverage level and by preparing a SWPPP. The SWPPP must include erosion- and sediment-control BMPs that would meet or exceed measures required by the determined risk level of the Construction General Permit, in addition to BMPs that control the other potential construction-related pollutants. A Construction Site Monitoring Program that identifies monitoring and sampling requirements during construction is also a required component of the SWPPP.

Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap or filter sediment once it has been mobilized. In addition to erosion- and sediment-control BMPs, the following types of BMPs would be implemented, as needed, during construction: waste and materials management; non-storm water management; training and education; and inspections, maintenance, monitoring, and sampling. The BMPs would be implemented in compliance with the Construction General Permit. All discharges from qualifying storm events would be sampled for turbidity and hydrogen potential (pH), and results would be compared to Numeric Action Levels to ensure that BMPs are functioning as intended. If discharge sample results fall outside these action levels, a review of causative agents and the existing site BMPs would be undertaken; maintenance and repair on existing BMPs would then be performed and/or additional BMPs would be provided to ensure that future discharges meet these criteria.

The construction-phase BMPs would ensure effective control of not only sediment discharge, but also of pollutants associated with sediments (e.g., nutrients, heavy metals, and certain

pesticides). In addition, compliance with Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology (BAT/BCT) requires that BMPs used to control construction water quality impacts are updated over time as new water quality control technologies are developed and become available for use. Therefore, compliance with the BAT/BCT performance standard ensures mitigation of construction water quality impacts over time.

Compliance with the Construction General Permit, including preparation of an SWPPP and General Water Discharge Requirements would ensure impacts to receiving waters from non-storm water flows during construction are less than significant. Standard Conditions (SC) HWQ-2 through HWQ-4 in Section 4.3.7 provide the necessary requirements to address the potential construction level impacts and no mitigation is required.

Operational (Long-Term) Water Quality

The Conceptual WQMP identifies the BMPs to address potential pollutants of concern; the Conceptual WQMP also identifies other measures that would control post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion rates and to protect stream habitat. The source-control BMPs include routine non-structural BMPs, routine structural BMPs, and BMPs for individual categories/project features. Site-design BMPs that help reduce the predicted increase in runoff volume include the clustering of development into Planning Areas, leaving large amounts of undeveloped open space within the Ranch Plan. These measures would be constructed as a component of the Ranch Plan.

The Project development scenarios would result in an incremental increase in the overall development density compared to the development entitlements permitted for the Ranch Plan because the AHIA defines the mandatory affordable housing units as being over and above the development approvals identified in the Ranch Plan Planned Community Statistical Table (PC Statistical Table) (see Section 4.4, Land Use and Planning for a discussion of the PC Statistical Table). However, the development footprint (i.e., the physical area being used for development) would not be increased because the Affordable Housing sites are located within the Planning Area development areas. Though the Project development scenarios would result in an incremental increase in the density because these units would be over and above the 14,000 dwelling units approved for the Ranch Plan, the Affordable Housing sites are identified as part of the Subarea Plan process and are located in the development area for the Ranch Plan. The WQMP prepared for the Master Area Plan must address the entire development, which would include the Affordable Housing sites. Therefore, when the storm drainage and water quality systems are developed as part of the Master Area Plan and Subarea Plans, runoff volumes are assumed from each of the Project development sites and RMV, as part of the implementation of watershed management improvements would size the facilities accordingly.

The WQMP prepared for the Ranch Plan, developed in compliance with the Model WQMP requirements of the County of Orange DAMP incorporates a number of site-design and source control BMPs. These measures will provide moderate to good levels of treatment of water quality, including pathogen indicators. In particular, the proposed infiltration measures will

provide effective treatment of dry weather flows and treatment of "first-flush" storm runoff.[4] The Affordable Housing sites would connect to the Ranch Plan water quality features through the storm drain system located in the streets.

The storm drain system developed in conjunction the Master Area Plan and Subarea Plans would be sized to accommodate urban uses in the development area for each Planning Area. Since the Affordable Housing Project is not resulting in additional area being developed and the increased density associated with the Affordable Housing units would be known, the backbone system for drainage and water quality treatment would be sufficient to accommodate the flows associated with the applicable Planning Area, including the Affordable Housing sites.

As part of the site plan review process for each Affordable Housing site, specific site conditions would be evaluated to ensure that the site design provides the necessary features to collect, treat, and convey storm water and water quality standards applicable at the time of construction are met (see SC HWQ-1 through SC HWQ-4 would apply).

Impact Conclusion: *The Project Development Scenarios (Scenarios 1 through 3) would not result in a violation of any water quality standards or waste discharge requirements because site design, source control and treatment systems, which would be constructed as part of the Ranch Plan, would provide an effective treatment for pollutants associated with urbanization. The Affordable Housing sites would connect to the storm drain/water quality treatment infrastructure constructed as part of Ranch Plan system. Therefore, pursuant to Thresholds 4.3-1 and 4.3-2, the potential to substantially degrade water quality or to result in a violation of applicable standards would be less than significant.*

No Project Alternative

The No Project Alternative would not provide any affordable housing on the designated sites. Though affordable housing would not be provided, the sites would be developed with either market rate dwelling units or non-residential development consistent with the Ranch Plan approvals. This alternative would result in an incremental reduction in the overall development level. Though the water quality impacts would be comparable to the Project Development Scenarios because all applicable water quality standards would be met, this alternative would not result in any direct discharges. Therefore, there would be no Project impacts.

Impact Conclusion: *The No Project Alternative would not result in a violation of any water quality standards or waste discharge requirements. Development of the designated sites would occur pursuant to the Ranch Plan approvals, and the site design, source control, and treatment control systems would provide an effective treatment for most pollutants associated with urbanization. Therefore, there would be no Project-related discharges and pursuant to Thresholds 4.3-1 and 4.3-2, there would be no impact with regards to the*

[4] First flush is the initial surface runoff of a rainstorm. Water pollution entering storm drains is typically more concentrated during this initial period when compared to the remainder of the storm.

potential to substantially degrade water quality or to result in a violation of applicable standards.

Threshold 4.3-3

Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

All Project Development Scenarios

FEIR 589 addressed the impacts associated with the development of the Ranch Plan, including watershed management measures that would maintain the flow regime and prevent significant impacts during a full range of flow events (2-year, 10-year, and 100-year). The Master Area Plans for each Planning Area identify the necessary storm drainage facilities and outlets to serve the development area. As previously indicated, a Master Area Plan covering Planning Areas 3 and 4 has been approved and would provide storm water systems that would serve Affordable Housing sites located in those Planning Areas. Subsequent Master Area Plans would be prepared for Planning Areas 5 and 8 and the infrastructure identified as part of those plans would serve the Affordable Housing sites located in those Planning Areas.

Site-design BMPs that have been incorporated into the Ranch Plan that help reduce the predicted increase in runoff volume include the clustering of development into Planning Areas, leaving large amounts of undeveloped open space within the Ranch Plan. The commitment by the Ranch Plan to use native and drought-tolerant plants in landscaped areas and the use of efficient irrigation systems in common landscaped areas also helps reduce or eliminate dry weather flows. These features would also serve the Affordable Housing sites.

As previously identified, the Affordable Housing sites are located within the development boundaries for the Ranch Plan; therefore, the development Scenarios (Scenarios 1 through 3) would not result in the an expansion of the areas to be graded nor would they substantially alter site coverage. No additional hydromodification or drainage impacts would occur with the Project development scenarios because the only additional grading required would be minor site preparation, which is expected to be approximately 10,000 cubic yards of grading per site.[5] As identified in Section 3.4, Description of the Project, the Affordable Housing site would be provided graded; therefore, the Project development scenarios would not require grading in drainages. As previously indicated, RMV is required to implement watershed management measures as part of the Ranch Plan. As a result, there would be no significant impacts associated with alteration of the existing drainage pattern as a result of the Project. The precise grading activities would be completed in compliance with the OC Grading and Excavation Code.

The Project development scenarios would not substantially increase runoff flows that would exceed the capacity of the planned storm water drainage systems because development of the Affordable Housing sites have been assumed as part of the sizing and design of the larger backbone infrastructure that will be provided for each of the Planning Areas. The Project would

[5] As discussed in Section 3.4, Description of Project, the estimate of 10,000 cubic yards is based on the grading required to do the finish grading (e.g., building foundations, onsite utility trenching, and community pool) and is consistent with the quantities required for comparable projects in Planning Areas 1 and 2.

result in density greater than if the Affordable Housing sites were developed with Ranch Plan approved development. However, as stated above, the Affordable Housing sites are identified as part of the Subarea Plan process and would be located in the development areas of the Ranch Plan. Supporting infrastructure, such as storm drains and water quality features, are identified as part of the Subarea Plan process and would be sized accordingly. Storm drains and detention basins, as needed, would also be constructed within the local streets for each of the Project sites and would connect to the backbone storm drain system. On-site storm drains would be developed in accordance with the County of Orange Flood Control District standards. Impacts would be less than significant.

Impact Conclusion: *The Project development scenarios would not create or contribute runoff flows that would exceed the capacity of the planned storm water drainage systems because development of the Affordable Housing sites have been assumed as part of the sizing and design of the larger backbone infrastructure that will be provided for each of the Planning Areas. Therefore, pursuant to Threshold 4.3-3 impacts would be less than significant.*

No Project Alternative

The No Project Alternative would develop the Affordable Housing sites with uses approved as part of the Ranch Plan. This would incrementally reduce the overall density of development within the Ranch Plan when compared to the Project because no mandatory affordable housing, which is over and above the November 8, 2004, Ranch Plan approvals, would be developed. The storm water drainage systems are planned to accommodate the urban uses in the development portions of each Planning Area; therefore, they have been or will be appropriately designed and sized as part of the Master Area Plan process. Because the development on the sites would be associated with the Ranch Plan approvals, there would be no Project-related impacts.

Impact Conclusion: *The No Project Alternative would not substantially increase runoff flows that would exceed the capacity of the planned storm water drainage systems because development of the Affordable Housing sites would incorporate Ranch Plan approved uses, which have been appropriately designed and sized as part of the Master Area Plan for each of the Planning Areas. Therefore, pursuant to Threshold 4.3-3 there would be no Project-related impacts.*

4.3.6 CUMULATIVE IMPACTS

As discussed in Section 4.0, Impact Analysis Introduction, the evaluation of the potential cumulative impacts for the proposed Project assumes the development of the long-range growth projections approach. All cumulative development, including the proposed Project would be subject to the hydrology/drainage and water quality related requirements of the San Diego RWQCB and the applicable local jurisdiction. Future development projects would be required to prepare a hydrology analysis that would identify pre- and post-development rates and drainage system improvements that would control project runoff and contribute to cumulative runoff. As part of the final storm drain plan, new development would be required to confirm that adequate infrastructure is provided to convey site runoff to local and regional facilities.

The provision of drainage system improvements as a component of all future developments, including the proposed Project, would ensure that project-specific, as well as cumulative impacts on the hydrologic processes in the watershed would be less than significant. The Ranch Plan, which would be the most substantial cumulative project in the area, has established a framework for addressing the hydrologic conditions of concern as defined in the MS4 Permit. As discussed above, Ranch Plan watershed management measures would maintain the flow regime and would prevent significant impacts during a full range of flow events (2-year, 10-year, and 100-year). Measures have been adopted that address potential erosion and sedimentation impacts on a Ranch-wide basis. These improvements would be implemented prior to the Affordable Housing sites becoming available; therefore, the Project would not contribute to a significant adverse impacts on hydrology.

The Ranch Plan WQMP has incorporated BMPs which are designed to ensure all permit requirements are met and downstream impacts associated with Ranch Plan implementation are minimized. Similar to hydrology, storm water flows from the Project would be directed to these facilities, which will provide water quality treatment through a combination of detention, retention, and infiltration. These facilities have been designed in compliance with the regulatory framework established to protect against water quality and drainage impacts and would function to address water quality concerns of both the Ranch Plan and the proposed Project (see discussion above regarding the model WQMP and DAMP requirements).

FEIR 589 found the Ranch Plan is not expected to produce significant impacts with respect to pollutants of concern. FEIR 589 found that based on available information the stormwater detention basins and infiltration basins should provide moderate to good levels of treatment for pathogen indicators. However, based on the data available at the time, FEIR 589 found the Ranch Plan may result in increases in pathogen levels (i.e., bacteria counts) above target limits even though all regulatory requirements will be met. This finding was based on the fact that bacteria indicators in San Juan Creek exceeded acceptable standards downstream in the vicinity of the Pacific Ocean and neither existing nor post-development levels are likely to meet REC-1 standards (200 MPN/100ml) for fecal coliform on a consistent basis, other than those flows that are infiltrated. Given the infeasibility of infiltrating all flows, a finding of a significant impact was made. Recently, the USEPA conducted a scientific assessment of the recreational water quality criteria and the effects on human health or aquatic life. The USEPA is now recognizing that non-human sources of indicator bacteria represent a lower risk of human health impacts. As of publication of this EIR, the State has not issued first rules on the USEPA finding (first rules are expected in Fall 2016); however, the underlying change is that if the Project tightly controls the sewer infrastructure and builds it to avoid leaks and spills (particularly by sealing all joints) the effect on human health (pathogen levels) will be low even if pathogen indicators from non-human sources are high. This represents a change in the state of knowledge than when FEIR 589 was prepared. In addition, the development will use all current Low Impact Development (LID) BMPs to retain the 85th percentile storm, unlike the assumptions in FEIR 589, which was based more on treat and release BMPs. Recognizing this new information and BMP methodology, the Project would not contribute to a cumulative water quality impact that would substantially degrade water quality or to result in a violation of applicable standards. Cumulative impacts would be less than significant.

4.3.7 MITIGATION PROGRAM

Standard Conditions and Requirements

The following Standard Conditions of Approval (SCs) have been identified that would serve to minimize or avoid potential impacts. It is assumed that these measures, which are derived from the County of Orange Standard Conditions of Approval, apply to the development of the Affordable Housing Project and would be implemented when specific development plans for the various Affordable Housing sites are proposed:

SC HWQ-1 Prior to issuance of grading or building permits, drainage studies that demonstrate the following shall be submitted to and approved by Manager, Permit Services:

1. All surface runoff and subsurface drainage shall be directed to the nearest acceptable drainage facility, as determined by the Manager of Building & Safety, or his/her designee.
2. Drainage facilities discharging onto adjacent property shall be designed to imitate the manner in which runoff is currently produced from the site and in a manner meeting the satisfaction of the Manager, Permit Services. Alternatively, the County or its designee may obtain a drainage acceptance and maintenance agreement, suitable for recordation, from the owner of said adjacent property. All drainage facilities must be consistent with the County of Orange Grading Ordinance and Local Drainage Manual (County of Orange Standard Condition D02).

SC HWQ-2 Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the County's National Pollutant Discharge Elimination System (NPDES) Implementation Program in a manner meeting the satisfaction of the Manager, OC Inspection (County of Orange Standard Condition WQ02).

SC HWQ-3 Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance with California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing in a manner meeting the satisfaction of the Manager, Permit Intake. Projects subject to this requirement shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the Project site and be available for County review on request (County of Orange Standard Condition WQ04).

SC HWQ-4 Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Intake, to demonstrate compliance with the County's NPDES Implementation Program and State water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials,

wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, and other construction materials shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion, or dispersion. The ESCP shall also describe how the County or its designee will ensure that all BMPs will be maintained during construction of any future public rights-of-way. The ESCP shall be updated as needed to address the changing circumstances of the Project site. A copy of the current ESCP shall be kept at the Project site and be available for County review on request (County of Orange Standard Condition WQ05).

Mitigation Measures

Impacts with each of the Project development scenarios would be less than significant and no additional mitigation measures are required.

4.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant and no mitigation measures are required for the Project development scenarios and the No Project Alternative.

4.3.9 REFERENCES

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4.4 LAND USE AND PLANNING

This section describes the existing and planned land uses both on site and in the Project's surrounding area and assesses the Project's potential impact on these uses. Additionally, the section identifies the plans and policies of applicable planning documents and the consistency of the Project with those policies.

4.4.1 REGULATORY SETTING

One aspect of land use planning considered under the California Environmental Quality Act (CEQA) is the consistency of the Project with relevant planning documents. Relevant planning documents associated with this Project include the *County of Orange General Plan* and the Southern California Association of Governments (SCAG) *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) and the Regional Comprehensive Plan (RCP).

Regional

Southern California Association of Governments

SCAG is the Metropolitan Planning Organization (MPO) for six counties: Orange, Los Angeles, San Bernardino, Riverside, Ventura, and Imperial. The SCAG region includes 191 cities in an area that encompasses more than 38,000 square miles. As the designated MPO, SCAG prepares plans for transportation, growth management, hazardous waste management, and air quality. Additionally, SCAG reviews environmental documents of projects of regional significance for consistency with regional plans. SCAG's responsibilities include the following:

- Maintaining a continuous, comprehensive, and coordinated planning process (the "3 Cs") resulting in a Regional Transportation Plan (RTP) and a Federal Transportation Improvement Program (FTIP).
- Developing a Sustainable Communities Strategy (SCS) to address greenhouse gas emissions as an element of the RTP.
- Developing demographic projections.
- Developing integrated land use, housing, employment, transportation programs and strategies for the South Coast Air Quality Management Plan.
- Serving as co-lead agency for air quality planning in the Central Coast and Southeast Desert air basin districts.
- Developing and ensuring that the RTP and the FTIP conform to the purposes of the State Implementation Plans for specific transportation-related criteria pollutants, per the Clean Air Act.
- Serving as the authorized regional agency for intergovernmental review of proposed programs for federal financial assistance and direct development activities.
- Reviewing environmental impact reports for projects having regional significance to ensure they are in line with approved regional plans.
- Developing an area-wide, waste treatment management plan.

- Preparing the Regional Housing Needs Assessment.
- Along with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council, preparing the Southern California Hazardous Waste Management Plan (SCAG 2015).

SCAG has developed a number of plans in compliance with its responsibilities. Those that are relevant to the Project include the RCP, the Regional Housing Needs Assessment (RHNA), and the RTP/SCS. An overview of these programs is provided in Section 4.4.3.

Local

The *California Government Code* (Section 65300) requires that each City and County in California "adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning". The general plan consists of principles, policies, and standards to guide the future development of the jurisdiction. The *California Government Code* identifies seven required elements: Land Use, Circulation, Housing, Conservation, Open Space, Safety, and Noise; however, the local agencies have discretion to adopt optional elements to address issues or concerns specific to their jurisdiction. For this Project, the *County of Orange General Plan* would be the applicable document.

4.4.2 METHODOLOGY

Information in this section is generally based on data from the *County of Orange General Plan*, SCAG, and the Center for Demographic Research (CDR) at California State University, Fullerton (CSUF). Existing and future land use data has been developed using data from the *County of Orange General Plan's* Land Use Element, Final Program Environmental Impact Report 589 (FEIR 589) prepared for the Ranch Plan Planned Community (the Ranch Plan), and the Master Area Plan and Subarea Plans for Planning Areas 3 and 4 of the Ranch Plan (RMV 2015a).

This section describes the land use conditions for the Project sites (and its immediate vicinity) and discusses potential land use impacts that could result from implementing the proposed Project. As discussed in Section 3.4.4, an Alternative CEQA Baseline is being utilized in this EIR because the Affordable Housing Implementation Agreement (AHIA) requires Rancho Mission Viejo (RMV) to provide the County of Orange with graded Affordable Housing sites; to provide access; and to extend utilities to the parcels. The impacts associated with preparation of the Affordable Housing sites are addressed in FEIR 589, and CEQA and regulatory permit compliance will occur prior to issuance of a grading permit.

The threshold from the County's Environmental Analysis Checklist and the State CEQA Guidelines' Appendix G Checklist is focused on planning and policy consistency. As part of the land use analysis, the State CEQA Guidelines require the EIR to evaluate potential "conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project". For this Project, the agency with jurisdiction over the Project would be the County of Orange. Though SCAG does not have direct approval authority over the Project, the County strives to achieve consistency with regional planning programs. However, since the County of Orange is the agency with authority over the Project, it is consistency with the County's plans and policies, which has been used as the basis of making a determination of a significant impact.

4.4.3 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

As discussed in Section 2.5, the Project is located within the limits of the Ranch Plan. As such, the underlying General Plan designation for the Affordable Housing sites would be Suburban Residential or Urban Activity Center and the zoning would be Planned Community.[1] Exhibit 4.4-1 depicts the County of Orange General Plan designations for the Project site and surrounding area. Though within the geographic boundary of the Ranch Plan, the proposed Affordable Housing units would be over and above the development approved for the Ranch Plan.

Existing Land Uses

The Project site is surrounded by the cities of Rancho Santa Margarita, San Juan Capistrano, and San Clemente and the unincorporated planned communities of Ladera Ranch, Las Flores, and Coto de Caza. Additionally, the Villages of Sendero (Planning Area 1) and Esencia (Planning Area 2) within the Ranch Plan have been developed as mixed use (residential, urban activity center, and neighborhood center).

Key open space areas surrounding the Project site include the Cleveland National Forest, Ronald W. Caspers Wilderness Park, Thomas F. Riley Wilderness Park, Rancho Mission Viejo Riding Park at San Juan Capistrano, and permanent open space located in unincorporated Orange County.[2] Marine Corps Base (MCB) Camp Pendleton is adjacent to the southern boundary of Planning Area 8 of the Ranch Plan. Other notable land uses in proximity to the Project site include Tesoro and San Juan Hills High Schools, the Chiquita Water Reclamation Plant (CWRP), and the Prima Deshecha Landfill.

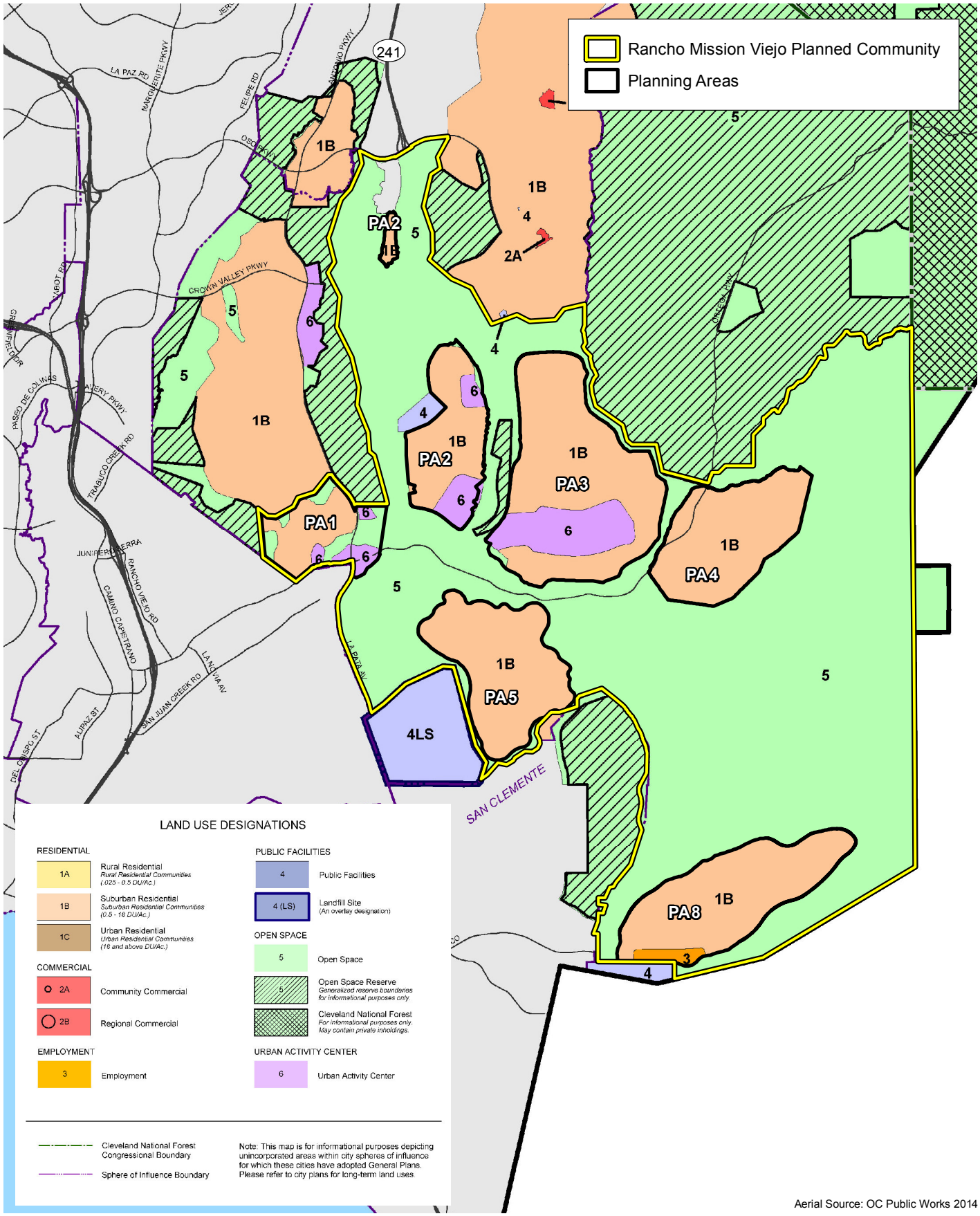
The location of these uses are all depicted on Exhibit 4.4-2, Surrounding Land Uses. The following provides a brief discussion of these key land uses.

Local Jurisdictions

- **City of Rancho Santa Margarita.** The City of Rancho Santa Margarita is immediately adjacent to the northern boundary of the Ranch Plan (i.e., north of Oso Parkway). The City provides a diverse number of uses; however, the incorporated area immediately adjacent to the Project site includes a portion of The Reserve at Rancho Mission Viejo (previously known as the Upper Chiquita Conservation Area) and State Route (SR) 241. The closest Affordable Housing site proposed as part of the Project would be those sites within Planning Area 3.
- **City of San Juan Capistrano.** The City of San Juan Capistrano forms the western boundary of the Ranch Plan (Planning Area 1). While the City provides a number of

[1] Though the Ranch Plan also includes Open Space, Open Space Reserve, Employment, and Public Facilities land use designations, the Affordable Housing developments would be limited to the Suburban Residential or Urban Activity Center designations.

[2] The *County of Orange General Plan* designates a substantial amount of Open Space and Open Space Reserve surrounding the Project site (see Exhibit 4.4-1). Within the General Plan's Open Space (5) designation, there is a second category called Open Space Reserve (OSR), which depicts lands preserved for open space. The OSR overlay includes major parks, beaches, forests, harbors, and other territory. However, there are private land holdings within the OSR designation, including areas within The Reserve at Rancho Mission Viejo. The Reserve includes land both within and outside the Ranch Plan. Exhibit 4.4-3 depicts the area that will ultimately be included in The Reserve at Rancho Mission Viejo.



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County of Orange General Plan Designations

Exhibit 4.4-1

Orange County Affordable Housing Implementation Plan Program EIR

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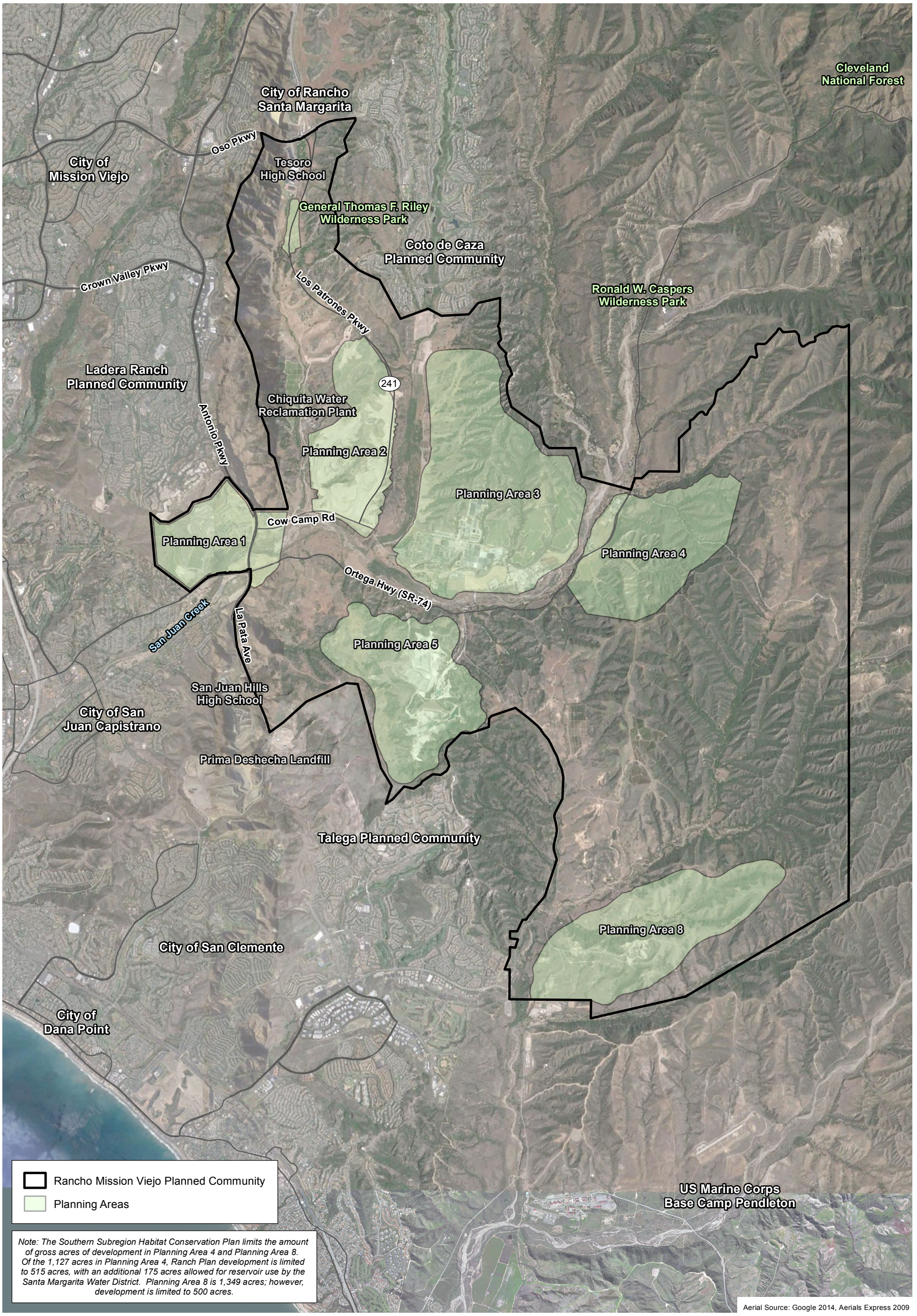

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Surrounding Land Uses

Exhibit 4.4-2

Orange County Affordable Housing Implementation Plan Program EIR

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diverse uses, residential development is immediately adjacent to Planning Area 1. The area consists of low-density single-family homes. The Affordable Housing sites for the Project are to the east of the City, with the closest location being the Affordable Housing site in Planning Area 5, approximately two miles away. It should be noted that San Juan Hills High School (discussed below) is within the City of San Juan Capistrano.

- **City of San Clemente.** The City of San Clemente forms the western boundary of the Ranch Plan (Planning Areas 5 and 8). The residential uses in the planned community of Talega are the closest adjacent land use in the City of San Clemente. Within the Talega Planned Community boundaries, there are approximately 2,000 acres of open space, which includes The Reserve at Rancho Mission Viejo (previously known as the Donna O'Neill Land Conservancy). The closest Affordable Housing site proposed as part of the Project would be those Affordable Housing sites within Planning Areas 5 and 8.
- **Unincorporated Orange County.** In unincorporated Orange County, there are two planned communities near the Project site, in addition to the Ranch Plan. Other than the Ranch Plan, each of these planned communities are predominately built out.
    - **Ladera Ranch Planned Community.** The Ladera Ranch Planned Community (Ladera Ranch) is located north and west of the Ranch Plan. The Ladera Ranch provides both residential and commercial uses. The Covenant Hills residential development, located in the southern portion of the Ladera Ranch, is in closest proximity to the Project site. The portions of the Project site in Planning Area 3 are approximately 2.5 miles east of the Ladera Ranch.
    - **Coto de Caza Planned Community.** Coto de Caza is a residential planned community located north and east of the Project site (east of Planning Area 2 and north of Planning Area 3). Residential development extends to the southern boundary of Coto de Caza. The closest Affordable Housing sites to the Coto de Caza are those Affordable Housing sites in Planning Area 3.
    - **Ranch Plan.** As previously indicated, two planning areas (Planning Areas 1 and 2) are currently under development. Because of the relationship of the Project to the Ranch Plan and the developing nature of this planned community, a more detailed discussion is provided below under Future Land Uses.

Open Space Areas

- **Cleveland National Forest.** The 460,000-acre Cleveland National Forest is located in the counties of Orange, Riverside, and San Diego. Substantial portions of the Cleveland National Forest in Orange County are within the Southern Subregion Habitat Conservation Plan (SSHCP). The Cleveland National Forest is located east of the Ranch Plan. The closest Affordable Housing sites to the Cleveland National Forest are those sites in Planning Area 4 (NFF 2015).

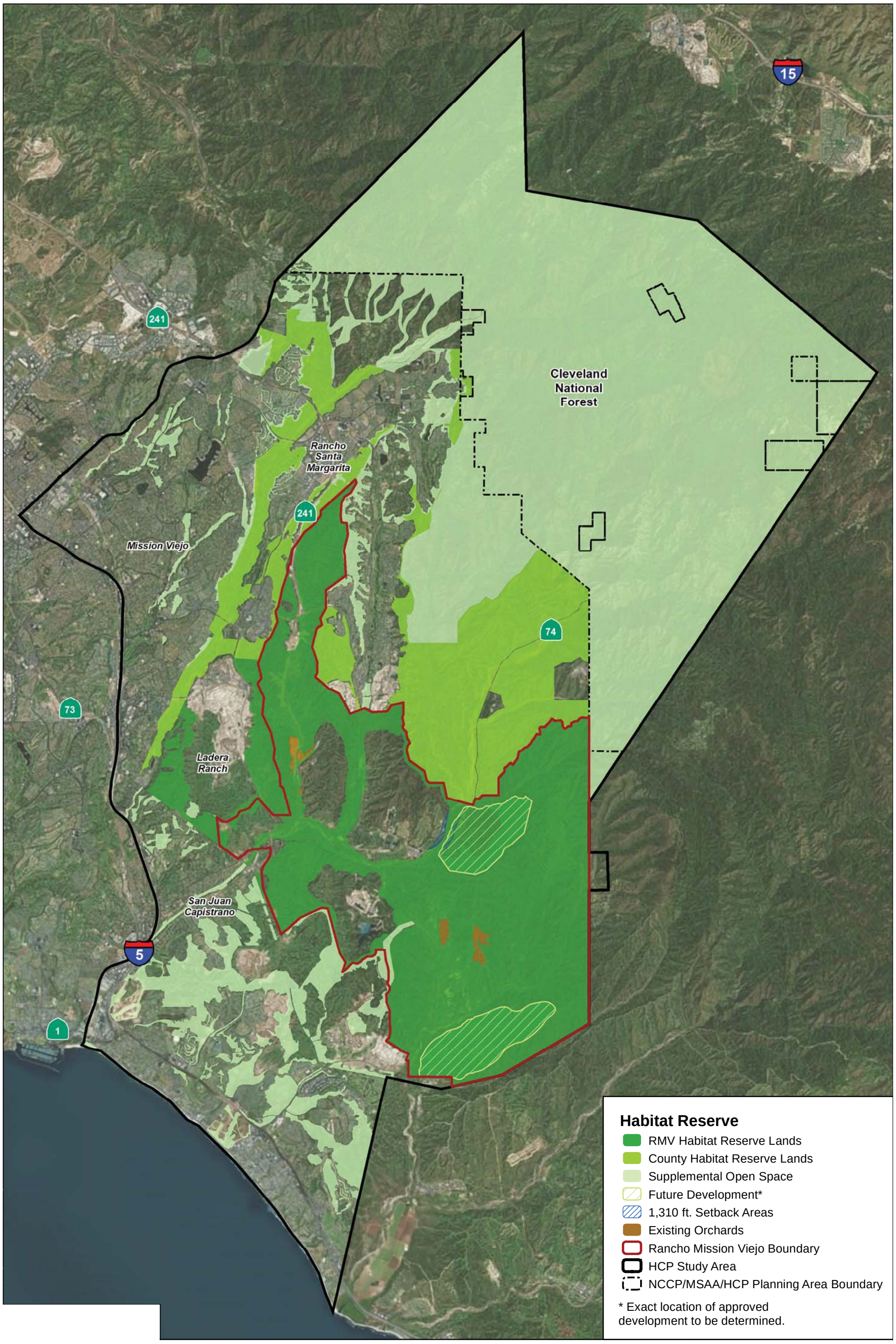
- **Ronald W. Caspers Wilderness Park.** Caspers Wilderness Park is an approximate 8,000-acre County of Orange regional park facility. Together with the General Thomas F. Riley Wilderness Park, the two parks contain protected land for a variety of native habitats and associated species and serve as outdoor recreation areas for hikers, equestrian users, and mountain bikers. Wilderness parks are intended to have minimal hardscape and improvements and to provide access and enjoyment/observation of

natural resources and processes. The closest Affordable Housing sites to the Ronald W. Caspers Wilderness Park are those sites in Planning Areas 3 and 4 (OC Parks 2015a).

- **General Thomas F. Riley Wilderness Park.** The General Thomas F. Riley Wilderness Park is a 544-acre County regional park facility south of Oso Parkway and north and east of the Ranch Plan. The park has five miles of multi-use and single track trails for hikers, equestrians, and mountain bikers. The closest Affordable Housing sites to General Thomas F. Riley Wilderness Park are those sites in Planning Area 3 (OC Parks 2015b).
- **The Reserve at Rancho Mission Viejo.** The Reserve includes the 1,200 acres of what was previously known as the Richard and Donna O'Neill Conservancy, the lands of the Ladera Ranch Open Space, the dedicated open space associated with the development in the Villages of Sendero and Esencia, and other pre-existing conservancies and conservation easements. The Reserve includes more than ten miles of hiking, biking and riding trails, and key areas of the Arroyo Trabuco. As the Ranch Plan develops, land will be added to The Reserve. Currently, The Reserve at Rancho Mission Viejo encompasses 3,336 acres. Over the years, The Reserve will grow to include 20,868 acres of Rancho Mission Viejo lands and 11,950 acres of land owned by the County of Orange (O'Neill Regional Park, Riley Wilderness Park, and Caspers Wilderness Park). The Rancho Mission Viejo Land Trust, a charitable foundation, manages The Reserve at Rancho Mission Viejo. Exhibit 4.4-3 depicts the location of the land that will be included in The Reserve, as well as other habitat reserve lands in the vicinity (RMV 2015b).

Other Land Uses

- **U.S. Marine Corps Base Camp Pendleton.** MCB Camp Pendleton is located on approximately 125,000 acres of largely undeveloped land in unincorporated San Diego County and borders portions of the Ranch Plan on the south and east adjacent to Planning Area 8. MCB Camp Pendleton is the largest amphibious training facility for the United States Department of Defense. Directly adjacent to the southern boundary of the Ranch Plan, land uses include Camp Talega (a cantonment area containing military barracks, drill training areas and other troop support facilities), the property leased for the San Onofre State Park and Beach, firing range areas, and Live Fire and Maneuver Areas. The closest Affordable Housing sites to MCB Camp Pendleton are those sites in Planning Area 8.
- **Tesoro High School.** This public high school is located at 1 Tesoro Creek Road in the community of Las Flores. Access is off of Oso Parkway near the current SR-241 terminus. The campus shares its eastern, western, and southern borders with the Ranch Plan. The closest Affordable Housing sites to Tesoro High School are those sites in Planning Area 3.
- **San Juan Hills High School.** The public high school is located at 29211 Vista Montana in the City of San Juan Capistrano. Access is taken off of La Pata Avenue. The school is south and west of the Ranch Plan. The closest Affordable Housing sites to San Juan Hills High School are those sites in Planning Area 5.
- **Prima Deshecha Landfill.** The Prima Deshecha Landfill is a county sanitary landfill facility located in unincorporated Orange County and the cities of San Juan Capistrano and San Clemente. The landfill opened in 1976 and is scheduled to close in approximately 2067 (OC Waste & Recycling 2015). Upon closure, the landfill site is planned to be a



Source: Dudek 2016

The Reserve at Rancho Mission Viejo

Exhibit 4.4-3

Orange County Affordable Housing Implementation Plan Program EIR

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regional park. The closest Affordable Housing sites to the Prima Deshecha Landfill are those sites in Planning Area 5.

- **Chiquita Water Reclamation Plant.** The CWRP, owned and operated by the Santa Margarita Water District (SMWD), provides preliminary, primary, secondary, and tertiary wastewater treatment for flows from the Mission Viejo, Rancho Santa Margarita, and the unincorporated areas of Coto de Caza, Las Flores, Ladera Ranch, the Ranch Plan, and Talega. The CWRP's current permit capacity is 9.0 million gallons per day (mgd) and has been approved for up to the projected future flow of 10.5 mgd. The CWRP is surrounded by the Ranch Plan (Planning Area 2) but is not part of the planned community. The closest Affordable Housing sites to the CWRP are those sites in Planning Area 3.

Future Land Uses

Future development in the Project vicinity would be associated with the Ranch Plan. As previously indicated, the Affordable Housing site locations are all within the currently undeveloped Planning Areas of the Ranch Plan (Planning Areas 3, 4, 5, and 8). Table 4.4-1 provides statistical information for the Ranch Plan. As discussed in Section 2.6.3, the *Ranch Plan Planned Community Program Text* states that a Master Area Plan and Subarea Plans are required for each planning area proposed for development. RMV has processed the Master Area Plans and Subarea Plans for Planning Areas 1 through 4. No Master Area Plans or Subarea Plans have been processed for the remaining Planning Areas. Though the Master Area Plan and Subarea Plans for Planning Areas 3 and 4 have been processed, grading has not started in these Planning Areas.

TABLE 4.4.1
RANCH PLAN PLANNED COMMUNITY STATISTICAL SUMMARY

Planning Area	Development Use									Total Gross Development Acres	Open Space Use	Planning Area totals
	Residential		Urban Activity Center (UAC)		Neighborhood Center		Business Park		Golf Resort			
	Gross Acres	Maximum Dwelling Units	Gross Acres	Maximum Square Footage of Non-Residential Uses (in thousands)	Gross Acres	Maximum Square Footage (in thousands)	Gross Acres	Maximum Square Footage (in thousands)	Gross Acres		Open Space Acres	Gross Acres
Planning Area 1	446	1,287	5	30	13	95				464	240	704
Planning Area 2	795	2,700	45	500	5	25				845	835	1,680
Planning Areas 3 and 4	2,416	7,500	201	2,950	19	145	50	305		2,686	627	3,313
Planning Areas 5 and 8	1,705	2,513			13	235	30	915	25	1,773	3,010	4,783
Planning Area 10*											12,203	12,203
Subtotal	*5,362*	*14,000*	*251*	*3,480*	*50*	*500*	*80*	*1,220*	*25*			
Total										**5,768**	**16,915**	**22,683**

Revised July 26, 2006, per Planning Commission Resolution # 06-05.
Revised February 23, 2011, per PA110003, PA110004, PA110005, and PA110006.
Revised March 27, 2013, per Planning Commission.
Revised February 2015 per Planning Commission

* Planning Area 10 is not a development planning area and only includes acreage that will be retained in open space.

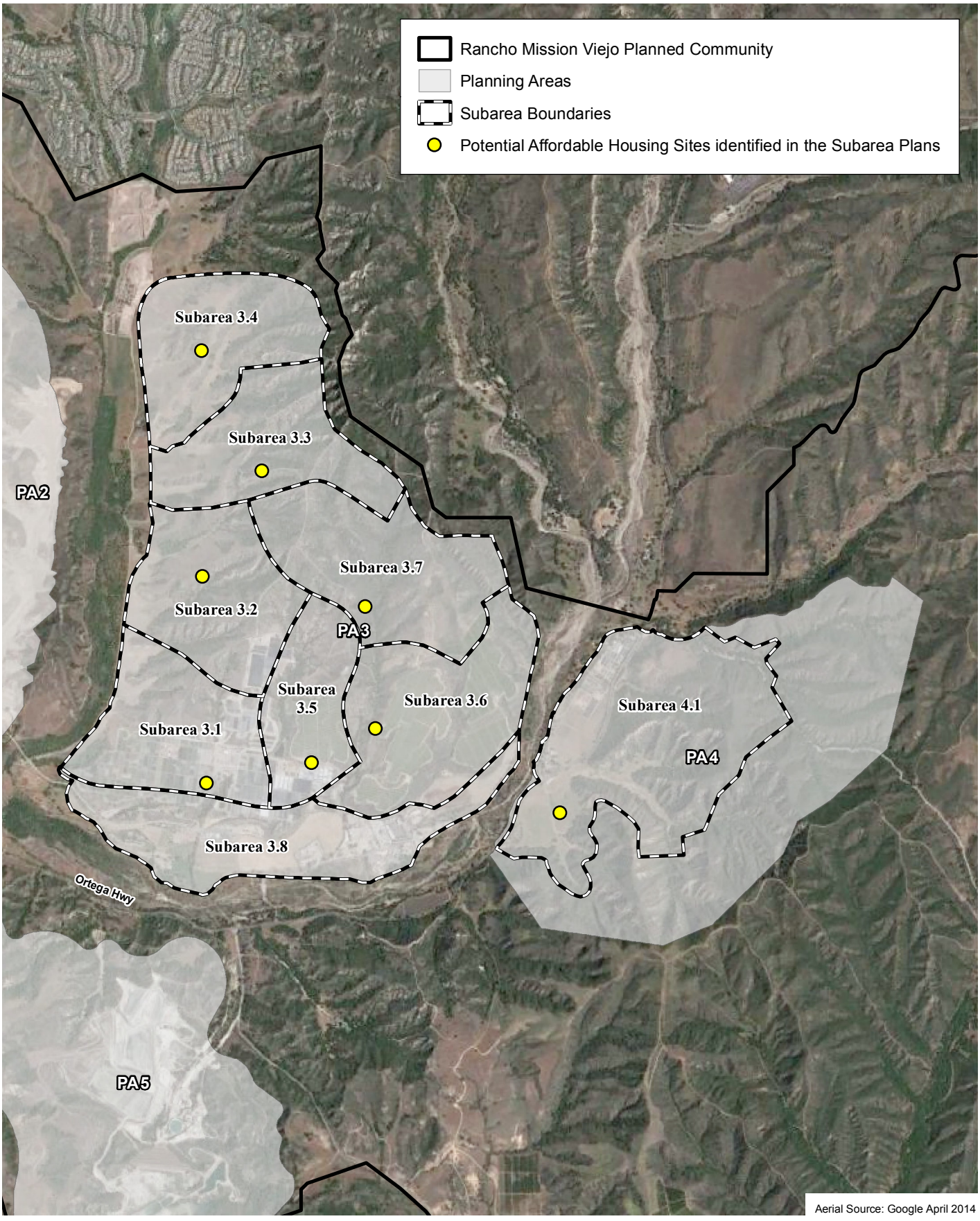
Source: RMV 2015a.

As part of the Subarea Plan process, Affordable Housing sites have been identified in Planning Subareas 3.1 through 3.8 and 4.1. Exhibit 4.4-4 depicts the Subarea boundaries and Affordable Housing site locations. The following is an overview of the future uses in these subareas, based on the approved Subarea Plan:

- **Subarea 3.1.** The 257-gross-acre Subarea allows a total of 962 dwelling units, including approximately 390 age-qualified units. A potential Affordable Housing site of up to 3-gross-acres has been identified. Other uses include up to 12 acres of community facility uses (that may include school and a day care center), private recreational uses, up to 5 acres of public parkland and up to 3 acres of Neighborhood Center (maximum 15,000 square feet of uses).[3]
- **Subarea 3.2.** The 269-gross-acre Subarea allows a total of up to 1,154 dwelling units, including approximately 468 age-qualified units. A potential Affordable Housing site of up to 6-gross-acres has been identified. Other uses include private recreational uses, up to 5 acres of public parkland and up to 3 acres of Neighborhood Center (maximum 15,000 square feet of uses).
- **Subarea 3.3.** The 252-gross-acre Subarea allows a total of 1,001 dwelling units, including approximately 406 age-qualified units. A potential Affordable Housing site of up to 6-gross-acres has been identified. Other uses include up to 2 acres of community facility uses (that may include a fire station and a day care center), private recreational uses, up to 5 acres of public parkland, and up to 3 acres of Neighborhood Center (maximum 15,000 square feet of uses).
- **Subarea 3.4.** The 252-gross-acre Subarea allows a total of 881 dwelling units, including approximately 357 age-qualified units. A potential Affordable Housing site of up to 3 gross-acres has been identified. Other uses include private recreational uses, up to 5 acres of public parkland and up to 10 acres of Neighborhood Center (maximum 100,000 square feet of uses).
- **Subarea 3.5.** The 178-gross-acre Subarea allows a total of 700 dwelling units, including approximately 284 age-qualified units. A potential Affordable Housing site of up to six-gross-acres has been identified. Other uses include up to 20 acres of community facility uses (that may include community center, a church, a fire station, and a library), private recreational uses, up to 5 acres of public parkland and up to 50 acres of Business Park (maximum 305,000 square feet of uses).[4]
- **Subarea 3.6.** The 335-gross-acre Subarea allows a total of 1,171 dwelling units, including approximately 515 age-qualified units. A potential Affordable Housing site of up to 6-gross-acres has been identified. Other uses include up to 17 acres of community facility uses (that may include school, a fire station, and a day care center), private recreational

[3] Uses allowed under the Neighborhood Center land use category are defined in Section III.C.1.a of the *Ranch Plan Planned Community Program Text*. Uses include but are not limited to offices, service stations, government uses, churches, cultural facilities, and retail uses.

[4] Uses allowed under the Business Park land use category are defined in Section III.E.1.a of the *Ranch Plan Planned Community Program Text*. There is an extensive list of allowable uses, which includes but is not limited to offices, automobile repair, community facilities, government offices, light manufacturing, golf courses, service industries, and commercial uses.



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Subarea Boundaries and Affordable Housing Site Locations

Exhibit 4.4-4

Orange County Affordable Housing Implementation Plan Program EIR

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uses, up to 20 acres of public parkland and up to 53 acres of Urban Activity Center (maximum 750,000 square feet of uses).[5]

- **Subarea 3.7.** The 319-gross-acre Subarea allows a total of up to 1,131 dwelling units, including approximately 499 age-qualified units. A potential Affordable Housing site of up to 6-gross-acres has been identified. Other uses include 3 acres of community facility uses (including a potential church), private recreational uses, and up to 5 acres of public parkland.
- **Subarea 3.8.** The 309-gross-acre Subarea will include residential land uses, a 50-acre sport park, 80 acres of detention and water quality basins, 35 acres of Urban Activity Center (maximum of 500,000 square feet of uses), and 75 acres of agricultural and other existing uses (including "Cow Camp").
- **Subarea 4.1.** The 1,127-acre Planning Area includes 515 gross acres of development uses.[6] The Subarea allows a total of 500 dwelling units, including a potential Affordable Housing site of up to 3-gross acres. Other uses include private recreational uses and up to 113 acres of Urban Activity Center (maximum 1,700,000 square feet of uses).

Applicable Policy Documents

This section provides an overview of the applicable regional planning programs and General Plan elements. To avoid repetition of the applicable policies, the policies and the consistency assessment is provided in Section 4.4.6, as part of the impact analysis for Threshold 4.4-1.

Regional Planning Programs

Regional Comprehensive Plan

SCAG's RCP provides a policy framework for regional planning in Southern California. The RCP calls for City and County involvement and coordination in addressing regional issues related to growth management and development. However, the RCP only serves as a voluntary "toolbox" to assist local jurisdictions in making their General and Specific plans and individual projects more sustainable. As identified in Resolution No. 08-502-1 (Resolution of the Southern California Association of Governments accepting the 2008 Regional Comprehensive Plan for the SCAG Region), given its advisory nature, the 2008 RCP is not used in SCAG's Inter-Governmental Review (IGR) process (SCAG 2008).

Regional Housing Needs Assessment

The RHNA developed out of the California State Housing Element Law enacted in 1980, which requires the regional councils of government to assess the existing and projected housing needs for persons at all income levels. SCAG, as the local regional council of governments, determines

[5] Uses allowed under the Urban Activity Center land use category are defined in Section III.D.1.a of the *Ranch Plan Planned Community Program Text*. There is an extensive list of allowable uses, which includes but is not limited to offices, automobile repair, service stations, community facilities, batch plants, commercial recreational uses, government offices, light manufacturing, recycling and transfer/material recovery facilities, research and testing laboratories, golf courses, service industries, commercial uses and retail uses, and cultural facilities.

[6] The remaining 612-acre undeveloped portion of Subarea 4.1 would be in permanent open space, with other potential uses, including but not limited to, a future reservoir and Agricultural and Other Existing and On-Going Uses allowed by the *Ranch Plan Planned Community Program Text* Section III.H.2.d.

each jurisdiction's share of the regional housing need in the six-county Southern California region. The RHNA quantifies the need for housing in each jurisdiction during specified planning periods. The current planning period is October 2013 to October 2021. The 6-county SCAG region's RHNA target is 412,137 units by 2021. Unincorporated Orange County's share of this target is 5,272 units for the 8-year period, which is based on future growth, the inventory of affordable housing, and other factors defined in State housing law (SCAG 2012a). The Final RHNA target allocation was adopted by the SCAG Regional Council on October 4, 2012, and was approved by the State Housing Community Development (HCD) on November 26, 2012 (SCAG 2015b).

The RHNA process is intended to create a better balance of jobs and housing in communities, and to ensure the availability of housing for all income groups. The local jurisdictions are required to incorporate the RHNA data into their General Plan Housing Elements. The RHNA policy is addressed in Section 4.4.5 (as part of the *County of Orange General Plan*, Housing Element policy evaluation)

Regional Transportation Plan/Sustainable Communities Strategy

The RTP is a long-range transportation plan that is developed and updated by SCAG every four years. The RTP provides a vision for transportation investments throughout the region. The SCS is a newly required element of the RTP. The SCS component integrates land use and transportation strategies that would achieve California Air Resources Board (CARB) emissions reduction targets pursuant to Senate Bill (SB) 375.

On April 7, 2016, the SCAG Regional Council adopted the 2016–2040 RTP/SCS. The RTP/SCS combines the need for mobility with a "sustainable future" through a reduction in the amount of emissions produced from transportation sources through the operation of low or no emission transportation systems by 2040. The 2016-2040 RTP/SCS, which updates the 2012-2035 RTP/SCS, highlights regional changes including: the region's fluid and dynamic demographic and housing market; the passage of MAP-21; state legislation on transportation funding; the rapid advancement of new technologies such as real-time traveler information, on-demand shared mobility services enabled by smartphone applications or ride-sourcing, car share and bike share; and the state's continued emphasis on reducing greenhouse gas emissions.

The 2016-2040 RTP/SCS was also developed recognizing the progress the region has made since the last Plan. Progress has been made in many planning areas, ranging from transit, passenger rail, highways, regional HOV and Express Lane network, active transportation, goods movement, sustainability planning implementation, affordable housing, and public health.

The goals of the 2016-2040 RTP/SCS have remained unchanged since the 2012-2035 RTP/SCS; however, the 2016-2040 RTP/SCS added two new policies which focus on transportation, which include investments and strategies to reduce non-recurrent congestion and demand for single occupancy vehicle use, and investments that result in cleaner air, a better environment, a more efficient transportation system. (SCAG 2016a)

The RTP/SCS also focuses on the economy with expectations of shortening the gap between the regional transportation system and economic vitality. To address the mobility challenge of the region's continuing roadway congestion, the RTP/SCS proposes transportation investments in transit; passenger and high-speed rail; active transportation; transportation demand

management; transportation systems management; highways; arterials; goods movement; aviation and airport ground access; and operations and maintenance projects. These are expected to indirectly create investment opportunities in the region.

County of Orange General Plan

The *Orange County General Plan* was adopted in 2005 and was last revised in 2015 to reflect adopted General Plan amendments to the Land Use Element. The General Plan is organized into nine elements. Seven of the elements are required by State law (i.e., Land Use, Transportation, Resources, Recreation, Noise, Safety, and Housing) and the remaining two (i.e., Public Services and Facilities and Growth Management) are either mandated by regional requirements or are optional elements addressing issues relevant to the development of the County.

Land Use Element

The Land Use Element describes objectives, policies, and land use patterns for all unincorporated Orange County territory. Land use categories are used to depict the general distribution, location, and extent of public and private uses of land. This element also establishes development criteria and standards, including population density and building intensity.

Utilizing a combination of objectives, policies, and programs, the Land Use Element serves two additional purposes. First, the implementation of land use policies provides a basis for the evaluation of physical development and growth trends in the County in order to achieve the General Plan goals. Second, land use policies determine land use capacities and the appropriate level of public services and infrastructure necessary throughout the County to support these capacities.

Transportation Element

The Transportation Element contains the County's overall transportation system plan. It develops a strategy for planning, developing, and maintaining a surface transportation system to serve existing and planned land uses in the unincorporated areas of Orange County.

The Transportation Element includes three closely related components that each play a vital role in the County's efforts to achieve a balanced transportation system through the integration of multi-modal transportation facilities: (1) Circulation Plan; (2) Bikeways Plan; and (3) Scenic Highways Plan. Each component contains a series of goals, objectives, and policies that provide direction for transportation implementation in unincorporated Orange County. A goal is a general expression of values and is abstract in nature. An objective is an intermediate step toward attaining a goal and it has a higher level of specificity than a goal. A policy is a specific statement that guides decision-making.

The specific arterial highways depicted on the Circulation Plan within the Project study area and potential transportation impacts associated with the Project are further discussed Section 4.9, Transportation/Traffic.

The Scenic Highway Plan of the County of Orange General Plan's Transportation Element identifies three scenic highways within the Ranch Plan. Antonio Parkway, Cow Camp Road, and Ortega Highway are all designated Landscape Corridors in the Scenic Highways Plan. A

Landscape Corridor "traverses developed or developing areas and has been designated for special treatment to provide a pleasant driving environment as well as community enhancement" (Orange County 2005). As part of the design plans for these roadways, which has been processed by RMV, a 25-foot scenic highway easement from the curb-line will be clear of structures and signage.

Resources Element

The Resources Element sets forth a comprehensive strategy for the development, management, preservation, and conservation of resources that are necessary to meet Orange County's existing and future demands. This strategy is expressed as an integrated framework of resource goals, policies, and programs to address the Element's six components:

- Natural Resources
- Energy Resources
- Water Resources
- Air Resources
- Open Space
- Cultural-Historical

The Resource Element goals are consistent with State requirements and are primarily based on quantified objectives, an assessment of resource needs, and identification of problems impeding the development, management, preservation, or conservation of County resources. The policies and programs of the Resources Element function as an implementation plan to meet the established goals.

Housing Element

The Housing Element ensures that the County establishes policies, procedures and incentives in its land use planning and development activities that result in the maintenance and expansion of housing stock to adequately accommodate households currently living and expected to live in the unincorporated County. Foremost among the topics addressed in the Housing Element is the provision of housing mixture to meet the needs of all economic segments of the unincorporated County, an expression of the statewide housing goal of "decent housing and a suitable living environment for every California family". The Housing Element includes a discussion of the community's goals, strategies, and actions relative to the maintenance, preservation, improvement and development of housing.

The Housing Element incorporates SCAG RHNA requirements for unincorporated Orange County. The County of Orange's 2013–2021 Housing Element was adopted by the Board of Supervisors on December 10, 2013, and was certified by the State HCD department on January 6, 2014. Unincorporated Orange County's allocated RHNA share is 5,272 units for the 2013–2021 period, as shown in Table 4.4-2. Although some County housing programs operate within cities, the purpose of the Housing Element is to ensure the County maintains and expands the housing supply to adequately accommodate households currently living and expected to live in unincorporated County areas. The Housing Element fulfills its purpose by establishing policies, procedures, and incentives in County land use planning and development activities.

TABLE 4.4.2
UNINCORPORATED ORANGE COUNTY PROPOSED REGIONAL HOUSING NEEDS ASSESSMENT TARGETS 2013–2021

Household Income Category	RHNA Target Units (percent of total)
Very Low Income[a]	1,240 (23.4%)
Low Income[b]	879 (17.1%)
Moderate Income[c]	979 (18.7%)
Upper Income[d]	2,174 (40.8%)
Total	**5,272 (100%)**

RHNA: Regional Housing Needs Assessment; AMI: Area Median Income

[a] 0–50 percent of the AMI. Half of these units are assumed to be in the extremely-low category (30% or less of AMI)
[c] 51–80 percent of AMI
[d] 81–120 percent of AMI
[e] Greater than 120 percent of AMI

Source: County of Orange 2013.

Growth Management Element

The Growth Management Element contains County policies on the planning and provision of traffic improvements and public facilities that are necessary for orderly growth and development. Orderly growth implies that the County provides an adequate circulation system; adequate sheriff, fire, paramedic, library services, and other necessary facilities; and environmental protection. The Element presents policies and programs for traffic improvement phasing, facility and development phasing plans, and provides guidance for future facility implementation plans for the County.

Noise Element

The purpose of the Noise Element is to provide a statement of public policy and a decision framework for the maintenance of a quiet environment. The Noise Element identifies the sources of noise; analyzes the extent of the noise intrusion; and estimates the potential impact of noise on the County. This identification process, in turn, provides the basis for goals, policies, and implementation programs designed to preserve, where possible, a quiet environment in Orange County.

Recreation Element

The Recreation Element contains the official policies pertaining to the acquisition, development, operation, maintenance, and financing of the County's varied recreation facilities, which include regional recreation facilities, local parks, and riding and hiking trails. The document identifies existing and potential constraints to and opportunities for satisfying the projected recreation demands for Orange County. While these constraints do not necessarily pose absolute barriers, they may inhibit the timely achievement of recreation objectives and efforts to implement recreation programs. The Recreation Element states that affordable housing is a goal of the

highest priority for the County and acknowledges of the need to balance the need for recreation facilities and the cost associated with dedication of land.

4.4.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist and Appendix G of the State CEQA Guidelines, the Project would result in a significant land use impact if it would:

Threshold 4-1 Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

As discussed in Section 2.3.1, Issues to be Addressed in the Environmental Impact Report, the threshold pertaining to dividing an established community and conflicting with habitat conservation plan or natural community conservation plan were focused out of the EIR at the time the Notice of Preparation was issued.

4.4.5 IMPACT ANALYSIS

For land use, there is only the one threshold of significance applicable to the Project. However, the analysis for this threshold is broken down into two areas: (1) compatibility with applicable land use plan and (2) consistency with applicable planning documents. The issue of compatibility is the same with all the Project development scenarios, except for how it pertains to satisfying the RHNA requirements. Therefore, to minimize repetition, the policy analysis other than RHNA is presented once and is applicable to all the Project development scenarios. A separate No Project Alternative discussion is also provided. The policy analysis is presented in tabular format with a column for each scenario/alternative. The RHNA analysis follows the policy analysis that is presented in Table 4.4-4.

Threshold 4.4-1

Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Compatibility with the Applicable Land Use Plan

All Project Development Scenarios

The AHIA requires that the Affordable Housing sites be identified when the Subarea Plans are processed. As part of the Subarea Plan process, the following elements of development are identified: (1) residential and non-residential development use locations, densities, and categories; (2) locations and acreages of park, recreation, and other open space uses; (3) circulation features; (4) ten-foot contour grading plans; and (5) community facility locations. Early identification of the Affordable Housing sites allows the Affordable Housing development

to be compatible with the surrounding land uses and to be assessed concurrently with the Ranch Plan land uses.

The Subarea Plans for Planning Areas 3 and 4 have been processed, and a total of eight Affordable Housing sites have been identified in these two Planning Areas. Though tract maps, which would identify the precise building pad locations for surrounding land uses, have not been processed, the general framework of the surrounding land uses have been identified through the Subarea Plans for Planning Areas 3 and 4 (see the discussion of the future land uses in Section 4.4.3). The site development permit process, which the *Ranch Plan Planned Community Text* requires for multiple-family dwellings, would address specific design compatibility issues with surrounding land uses.

Though the Master Area Plans and Subarea Plans for Planning Areas 5 and 8 have not been processed, a similar program would be implemented allowing for the Affordable Housing sites in each of these Planning Areas to be identified as part of the Subarea Plans and compatibility of land uses to be addressed through the planning process.

When processing the Master Area Plans and Subarea Plans for the Ranch Plan development the PC Statistical Table is used to track number of units and acreage/square footage constructed in the Ranch Plan to ensure that the maximum number of residential dwelling units or square footage/acreage of other uses do not exceed the approved levels. This mechanism ensures development consistency between the County General Plan and the *Ranch Plan Planned Community Program Text*. However, since the Project would be constructed pursuant to the AHIA (and applicable Addenda thereto), the Project's dwelling units would be over and above the Ranch Plan's 14,000 dwelling unit cap. Therefore, rather than relying on consistency with the PC Statistical Table, the analysis must consider consistency with the underlying General Plan land use designation and consistency with the General Plan policies. The Project units would not be reflected on the PC Statistical Table. This would not represent an inconsistency with an applicable land use plan, policy, or regulation because the PC Statistical Table is structured to track the development approved by the Board of Supervisors for RMV as part of the Ranch Plan approvals. The units developed as Affordable Housing would be in addition to the units identified on the PC Statistical Table.

All the Affordable Housing sites would be within the development portion of the Ranch Plan. Both the 1B-Suburban Residential and UAC-Urban Activity Center General Plan land use designations allow for residential development. Though the Affordable Housing sites are assumed to develop at a minimum 25 dwelling units per acre, the overall average density in each Subarea, including the Ranch Plan units, would be less than the up to the 18 dwelling units per acre allowed in the 1B-Suburban Residential Designation. As such, from a land use perspective, the proposed density of the Project is compatible with the General Plan 1B-Suburban Residential land use designations and a General Plan amendment is not required.[7] Table 4.4-3 provides a detailed breakdown of the number of units and acreage in Planning Areas 3 and 4 by Subarea. Though this level of detail is not currently available for Planning Areas 5 and 8 given the acreage in these two remaining Planning Areas and the number of units allocated for development, the

[7] The Land Use Element of the General Plan states, "The residential categories are intended for application to all areas so designated on the Land Use Designations figure with one exception. Where Planned Community Districts or specific Plans have been adopted but are not reflected in detail at the General Plan level the overall density and character represented on the Land Use Element Map are assumed to reflect the Planned Community District or Specific Plan regulations".

average density would be substantially less than the allowed 18 units per acre (Table 4.4-1 provides the number of gross acres and maximum number of dwelling units for the combined Planning Areas 5 and 8).

The adoption of Addendum Two to the AHIA, which would allow use of the Private-Sector Alternative for the Affordable Housing units in Planning Areas 3, 4, 5, and 8, would not change the compatibility of the Project with the General Plan or zoning. Additionally, the Affordable Housing development would be required to comply with the *Ranch Plan Planned Community Text's* zoning requirements, which would ensure that the overall site development standards (e.g., building heights, setbacks, site coverage) would be consistent with the surrounding land uses. Additionally, the land uses proposed (i.e., residential development) are consistent with what was assumed in the SSHCP.[8] The type of financing would not affect the overall compatibility of the Project with the zoning and development requirements.

No land use compatibility impacts have been identified with the Project development scenarios.

Impact Conclusion: *The Project development scenarios that propose development of affordable housing would be consistent with the applicable land use plan. There would be no compatibility impacts with existing or planned land uses surrounding the Affordable Housing sites. As it pertains to the consistency with an applicable land use plan portion of Threshold 4.4-1, the Project development scenarios would have no impact.*

[8] As discussed in Section 2.3.1 and as part of the Notice of Preparation (provided in Appendix A), consistency with the SSHCP was scoped out of the Program EIR because the Project would be constructed on parcels that have already been graded. The Affordable Housing parcels would be located in Planning Areas, consistent with the assumptions of the SSHCP, and mitigation for the impacts to biological resources is provided through the Ranch Plan.

TABLE 4.4.3
PLANNING AREAS 3 AND 4 DEVELOPMENT TABLE

Planning Area	Development Uses													Open Space Use	Planning Area Totals
	Residential					Urban Activity Center (UAC)		Neighbor-hood Center		Business Park		Golf Resort Gross Acreage	Total Gross Acres		
	Gross Acres	Net Acres	Maximum Dwelling Units	Age-Qualified Dwelling Units	Parkland Gross Acres	Gross Acres	Maximum Square Footage of Non-Residential Uses (in thousands)	Gross Acres	Maximum Square Footage (in thousands)	Gross Acres	Maximum Square Footage (in thousands)			Open Space Acres	Gross Acres
Planning Areas 3 and 4	**2,416**	**1,450**	**7,500**	**2,919**	**100**	**201**	**2,950**	**19**	**145**	**50**	**305**	**0**	**2,686**	**627**	**3,313**
Subarea 3.1	254	165	962	390	5			3	15				257		
Subarea 3.2	266	172	1,154	468	5			3	15				269		
Subarea 3.3	249	143	1,001	406	5			3	15				252		
Subarea 3.4	242	150	881	357	5			10	100				252		
Subarea 3.5	128	67	700	284	5					50	305		178		
Subarea 3.6	282	154	1,171	515	20	53	750						335		
Subarea 3.7	319	207	1,131	499	5								319		
Subarea 3.8	274				50	35	500						309		
Subarea 4.1	402	392	500			113	1,700						515		

Source: RMV 2015a

No Project Alternative

With the No Project Alternative, no affordable housing would be provided pursuant to the AHIA. Because no affordable housing development would occur, the land dedications required under the AHIA would be returned to RMV for development consistent with the Ranch Plan approvals. From a land use compatibility perspective, the No Project Alternative would be compatible with surrounding land uses as well as with the County's land use plan and zoning. This alternative would not provide affordable housing consistent with a number of the land use policies in the General Plan; however, a policy consistency discussion is provided below as the second part of this threshold.

Impact Conclusion: *With the No Project Alternative, no new affordable housing would be provided. From a land use compatibility perspective there would be no impacts with existing or planned land uses pursuant to Threshold 4.4-1.*

Consistency with Applicable Planning Policies

There are a number of regional and local planning programs that are relevant to the Project. Table 4.4-4, provided below, gives an evaluation of the Project in relation to the applicable goals and policies addressed in the relevant documents previously discussed (i.e., other than the RHNA analysis, which is discussed after Table 4.4-4). The matrix format provides easy comparison of the scenarios/alternatives. The determination of consistency for planning policies, other than the RHNA, is summarized below. Similar to consistency with the applicable land use plan evaluation, the discussion of Project development scenarios are grouped together because the same consistency determinations apply to all three development scenarios. The consistency with RHNA requirements is discussed separately because the three development scenarios offer different levels of affordable housing.

All Project Development Scenarios

As discussed in Table 4.4-4, all the Project scenarios that propose development of affordable housing are consistent with the applicable goals, policies, and objectives of the regional planning documents and the County General Plan. Each of the scenarios would contribute to meeting the long-term goals of providing housing to satisfy the housing needs identified through the local and regional processes. The alternatives would vary in the number of affordable housing units provided. If funds are available, Scenario 3 would provide the greatest number of units; thereby satisfying a larger percentage of the demand for affordable housing. Scenario 1 would provide the least number of units, though it would be done without any funding commitments from the County or other public sources.

Impact Conclusion: *All Project development scenarios propose development of affordable housing consistent with the applicable regional and local policies and regulations (i.e., the agencies with jurisdiction over the Project). Though the scenarios would provide varying levels of affordable housing, all the scenarios would contribute additional housing units for low and very-low income households and would serve the County's long-term housing goals. From a policy perspective, there would be no impact associated with inconsistencies with applicable policies and therefore, there would be no impact associated with this component of Threshold 4.4-1.*

No Project Alternative

The SCAG Regional Comprehensive Plan, the SCAG RTP/SCS, and the *County of Orange General Plan* (Land Use Element and Housing Element) identify best practices, land use strategies, goals, objectives, and policies designed to meet the regional affordable housing goals. As discussed in Table 4.4-4 (beginning on the next page), each of the planning documents contain measures requiring the local jurisdictions to provide affordable housing.

The SCAG Regional Comprehensive Plan and SCAG RTP/SCS identify overall practices and land use actions and strategies; however, these documents do not identify specific locations or methods for achieving the RHNA allocation. Though the Housing Element identifies the Ranch Plan as an area where affordable housing is anticipated, it also identifies opportunities for affordable housing elsewhere in unincorporated Orange County. As discussed further below, the Housing Element identifies a Housing Opportunities Overlay Zone program to facilitate the development of affordable housing in unincorporated Orange County. The Housing Opportunities Overlay Zone provides the option of affordable multi-family development on commercial and industrial sites.

The No Project Alternative would not utilize the land being provided for this purpose. With this alternative the land would revert back to RMV and the opportunity for providing additional affordable housing units would be lost. However, alternative approaches have been identified. As stated above, there are opportunities for sufficient affordable housing in the a Housing Opportunities Overlay Zone and the affordable housing units approved for Planning Areas 1 and 2 would be constructed with the No Project Alternative. Therefore, though the potential loss of the Dedicated Lands (for affordable housing) from RMV would be adverse, the County could be consistent with the overall policies and goals of the applicable planning document with the No Project Alternative by focusing resources in other portions of the County.

Impact Conclusion: *With the No Project Alternative, the County would rely on opportunities outside of the Ranch Plan for implementation of affordable housing in unincorporated Orange County. The Housing Opportunity Overlay Zone, identified in the Housing Element of the General Plan, is such an alternative program. The Housing Opportunities Overlay Zone identifies the opportunity for 2,032 lower income housing units. Therefore, though the No Project Alternative would directly not contribute additional housing units for low and very-low income households, it is not required that each project provide affordable housing for the County to be consistent with the applicable regional and local policies and regulations pertaining to the provision of affordable housing. The No Project Alternative impacts would be less than significant as it pertains to consistency with the policy component of Threshold 4.4-1.*

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TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
SCAG Regional Comprehensive Plan				
Voluntary Local Government Best Practices				
LU-4: Local governments should provide for new housing, consistent with State Housing Element law, to accommodate their share of forecast regional growth. **LU-4.1:** Local governments should adopt and implement General Plan Housing Elements that accommodate housing needs identified through the Regional Housing Needs Assessment (RHNA) process. Affordable housing should be provided consistent with RHNA income category distributions adopted for each jurisdiction. To provide housing, especially affordable housing, jurisdictions should leverage existing State programs such as HCD's Workforce Incentive Program and density bonus law and create local incentives (e.g., housing trust funds, inclusionary zoning, tax-increment-financing districts in redevelopment areas and transit villages) and partnerships with non-governmental stakeholders.	**Consistent:** The County of Orange has incorporated provisions into their Housing Element for providing affordable housing, including the RHNA allocations for low and very low-income housing in the unincorporated areas of Orange County. Scenario 1 would serve to help meet the goals outlined. This scenario would provide the least number of affordable units; however, it would be provided at no cost to the County. Scenario 1 maximizes the partnership role with non-governmental stakeholders. This would allow the County to allocate the public resources toward affordable housing development elsewhere in the County.	**Consistent:** The County of Orange has incorporated provisions into their Housing Element for providing affordable housing, including the RHNA allocations for low and very low-income housing in the unincorporated areas of Orange County. Scenario 2 would serve to help meet the goals outlined. This scenario would provide a greater number of affordable units compared to Scenario 1. It would require allocation of public resources for the affordable housing within the Ranch Plan and it would provide a partnership role with non-governmental stakeholders.	**Consistent:** As with the other two scenarios, Scenario 3 would serve to help meet the affordable housing goals outlined in the General Plan Housing Element. This scenario would provide the greatest number of affordable units within the Ranch Plan. It would require the greatest allocation of public resources for affordable housing. Though the units would be developed with public resources, Scenario 3 does still provide a partnership role with non-governmental stakeholders because the land would be dedicated by RMV, a private landowner.	**Consistent:** The County of Orange has incorporated provisions into their Housing Element for providing affordable housing in the unincorporated areas of Orange County. Though this alternative would not contribute to the actual provision of affordable housing, the County has made provisions for implementation of affordable housing elsewhere in unincorporated Orange County with the Housing Opportunities Overlay Zone program. Therefore, though the potential loss of the Dedicated Lands from RMV would be adverse, the County could be consistent with the overall policies and goals of the applicable planning document with the No Project Alternative by focusing resources in other portions of the County.
SCAG 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy				
Land Use Actions and Strategies				
Collaborate with local jurisdictions and agencies to acquire a regional fair share housing allocation that reflects existing and future needs. Support projects, programs, policies and regulations that encourage the development of complete communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance. Working with local jurisdictions, identify resources that can be used for employing strategies to maintain and assist in the development of affordable housing.	**Consistent:** As discussed above, the County of Orange has taken measures to meet the regional fair share for housing allocations. Providing affordable housing in the Ranch Plan would allow the proposed Affordable Housing sites to benefit from the balance of land uses and amenities offered by the Ranch Plan. As discussed above under future land uses, the Ranch Plan will provide employment, recreation, commercial, and cultural uses in the Planned Community. Scenario 1 is a strategy developed by the County of Orange and RMV to provide affordable housing that maximizes the use of Private-sector Alternative and the improvements would be provided at no cost to the County.	**Consistent:** From a policy position, the analysis provided for Scenario 1 would be applicable to Scenario 2. Providing affordable housing in the Ranch Plan would allow the proposed Affordable Housing sites to benefit from the balance of land uses and amenities offered by the Ranch Plan. Scenario 2 is a strategy developed by the County of Orange and RMV to provide affordable housing that utilizes private and public sector resources.	**Consistent:** From a policy position, the analysis provided for Scenario 1 would be applicable to Scenario 3. Providing affordable housing in the Ranch Plan would allow the proposed Affordable Housing sites to benefit from the balance of land uses and amenities offered by the Ranch Plan. Scenario 3 would need to rely on public financing strategies to develop the affordable housing.	**Consistent:** As discussed above, the County Housing Element identifies multiple methods for the implementation of affordable housing in unincorporated Orange County. Though implementation of affordable housing in the Ranch Plan is identified as one strategy for the County to meet its RHNA requirements, the total number of affordable housing units anticipated in the Ranch Plan for the current RHNA allocation is relatively small (360 affordable units). Of these units approvals have been granted for 219 affordable units in Planning Areas 1 and 2. The Housing Opportunities Overlay Zone program identified sufficient capacity to accommodate the additional 141 affordable units that would not be accommodated in the Ranch Plan with the No Project Alternative.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
County of Orange General Plan				
Land Use Element				
Policy 1: Balanced Land Use. To plan urban land uses with a balance of residential, industrial, commercial, and public land uses.	**Consistent.** Though Scenario 1 proposes only housing, when viewed in the larger context, the affordable housing would become part of the Ranch Plan, which provides a balance of land uses. The residents of the Affordable Housing Project would utilize all land uses and public facilities available to the residents of the Ranch Plan.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** The No Project Alternative would not result in impacts associated with the balance of land uses provided for by the General Plan. A mix of residential, industrial, commercial, and public land uses would still be provided in the region. However, there would not be assurances that affordable housing would be provided.
Policy 2: Phased Development. To phase development consistent with the adequacy of public services and facilities within the capacity defined by the General Plan.	**Consistent.** The development associated with Scenario 1 would be phased with the provision of public services and facilities being provided as part of the Ranch Plan. The Affordable Housing sites would be constructed in conjunction with the surrounding market rate development. As discussed in Section 4.7, Public Services, additional public services and facilities beyond those to be provided by the Ranch Plan are not required to accommodate the additional housing provided by Scenario 1.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** The No Project Alternative would not require any changes to the planned implementation of public services and facilities associated with development phasing of the Ranch Plan, which has been designed to ensure infrastructure demands are met.
Policy 3: Housing Densities. To provide a variety of residential densities which permit a mix of housing opportunities affordable to the county's labor force.	**Consistent.** The purpose of the Project is to provide affordable housing. Scenario 1 would provide an additional 555 affordable units in addition to the affordable housing units provided in Planning Areas 1 and 2.	**Consistent.** The purpose of the Project is to provide affordable housing. Scenario 2 would provide an additional 740 affordable units in addition to the affordable housing units provided in Planning Areas 1 and 2.	**Consistent.** The purpose of the Project is to provide affordable housing. Scenario 3 would provide an additional 1,110 affordable units in addition to the affordable housing units provided in Planning Areas 1 and 2.	**Consistent.** The Ranch Plan proposes a variety of residential densities, which would not be changed with the No Project Alternative. Though the No Project Alternative would not ensure that additional affordable housing would be incorporated into the Ranch Plan development, the General Plan policy applies to all unincorporated areas and is not specific to each development. Therefore, the County could still be in compliance with the policy of providing a housing mix affordable to the County's workers by directing resources to other locations in the County. Additionally, 219 affordable units have been approved for the Ranch Plan.
Policy 4: Land Use/Transportation Integration. To plan an integrated land use and transportation system that accommodates travel demand.	**Consistent.** The Ranch Plan, in conjunction with the South County Roadway Improvement Program (SCRIP) coordinates the provision of transportation improvements with the phasing of development. The traffic analysis for this Project considers the impact of the incremental increase in the amount of housing on the circulation network. As discussed in Section 4.9, Transportation/Traffic, Scenario 1 would not result in any deficiencies when compared to the Alternative Baseline or the Long-Range No-Project scenarios (both with and without SR-241 extension to I-5). Therefore, land use envisioned	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no additional affordable housing would be constructed under the No Project Alternative, there would be no impact on local travel demand.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
	by Scenario 1 would be accommodated by the roadway network.			
Policy 6: New Development Compatibility. To require new development to be compatible with adjacent areas.	**Consistent.** The Affordable Housing sites that would be provided under Scenario 1 would be consistent with the requirements of the *Ranch Plan Planned Community Text*, which also serves as the zoning requirements for the surrounding development.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no issues of compatibility with adjacent areas.
Transportation Element				
Circulation Plan Component Goals, Objectives and Policies				
Goal 1: Provide a circulation plan that supports land use policies of the County. **Objective 1.1:** Establish a circulation plan that accommodates the General Plan Land Use Element. **Objective 1.5:** Develop a circulation phasing plan to ensure that adequate roadway capacity is available on the circulation network to accommodate increments of new development. **Policy 1.1:** Implement the circulation plan in a manner that supports the implementation of adopted overall land use policies and which is consistent with financing capabilities. **Policy 1.2:** Apply conditions to land use development projects to ensure that the direct and cumulative impacts of these projects are mitigated with established level of service policies.	**Consistent.** As part of the Affordable Housing Project, access roads would be extended into the Project sites to accommodate anticipated traffic volumes. These internal streets would connect to the overall circulation system within the Ranch Plan. The Ranch Plan roadways and the improvements identified in SCRIP would be phased with development to ensure there is an adequate circulation network to accommodate the planned growth. As discussed in Section 4.9, Transportation/Traffic, Scenario 1 would not result in any roadway deficiencies. Therefore, Scenario 1 is consistent with goal of having a circulation plan that supports the land use polices. Scenario 1 would also be consistent with the policy of implementing a circulation plan that is consistent with financing capabilities. The Project would be responsible for payment of road fees consistent with applicable Road Fee Programs (refer to Standard Condition [SC] SC Trans-1, provided in Section 4.9, Transportation/Traffic) to fund roadway improvements that would serve the Affordable Housing Project.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no issues related to consistency with the Transportation Element.
Goal 3: Provide a circulation plan that facilitates the safe, convenient and efficient movement of people and goods throughout unincorporated areas of the County. **Policy 3.2:** Ensure that all intersections within the unincorporated portion of Orange County maintain a peak hour level of service "D", according to the County Growth Management Plan Transportation Implementation Manual. **Policy 3.3:** Evaluate all proposed land use phasing plans for major development projects to	**Consistent.** As discussed in Section 4.9, Transportation/Traffic, the Affordable Housing Project would generate additional vehicle trips that would use the local existing and planned circulation system. However, as discussed in Section 4.9, Transportation/Traffic, Scenario 1 would not cause any intersections, freeway/toll road ramps, or freeway/toll road mainline segments to operation at unacceptable levels of service. There are two locations that would operate at a deficient level of service (LOS); however, Scenario 1 does not contribute to these deficiencies and they are not in the	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no issues related to consistency with the Transportation Element.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
ensure maintenance of acceptable LOS on arterial highway links and intersections.	unincorporated portion of Orange County. The phasing for Scenario 1 would be tied to the phased implementation of the Ranch Plan. The Ranch Plan, through SCRIP, has a monitoring program to ensure that improvements are provided in a timely fashion and an acceptable LOS on arterial highway links and intersections is maintained.			
Goal 5: Manage peak hour traffic congestion to achieve an acceptable LOS on existing and future circulation plan facilities in the unincorporated areas of the County. **Objective 5.2:** Develop traffic forecasts for County unincorporated areas that are consistent with those of OCTA. **Policy 5.1:** Establish "traffic impact fees" for application to county development projects with measurable traffic impacts, as defined in the Growth Management Plan Element of the General Plan. These fees may serve as local matching funds for Orange County Measure 'M', state and federal highway funding programs. **Policy 5.3:** Use adopted Orange County forecasts for all projections of future year population, housing, employment, and other socioeconomic data to assure consistency among other General Plan Elements. **Policy 5.4:** Develop traffic forecasts for County unincorporated areas utilizing the approved Orange County forecast. **Policy 5.6:** Establish comprehensive traffic improvement programs to ensure that circulation improvements are built, as a condition of approval, to accommodate each phase of development. For a more detailed discussion regarding traffic improvement programs, refer to the Growth Management Plan Element of the General Plan. **Policy 5.7:** Require, as a condition of approval, that a development mitigation program, development agreement or developer fee program be adopted to ensure that development is paying its fair share of the costs associated with that development pursuant to Policy 5.1.	**Consistent.** As discussed in Section 4.9, Transportation/Traffic, the Affordable Housing Project would generate additional vehicle trips that would use the local existing and planned circulation system. The traffic modeling was done using the South County Sub-Area Model, Version 3.4, a subarea model derived from the Orange County Transportation Analysis Model, Version 3.4 (OCTAM 3.4), which is maintained by the OCTA. Therefore, the analysis is consistent with the policies pertaining to traffic forecasting. As discussed in Section 4.9, Transportation/Traffic, Scenario 1 would not cause any intersections, freeway/toll road ramps, or freeway/toll road mainline segments to operate at unacceptable levels of service. Impacts would be less than significant and would not require mitigation. Therefore, Scenario 1 is consistent with the policies pertaining to maintaining an adequate level of service on the roadway network. As required by SC TRANS-1, Scenario 1 would be required to pay fees pursuant to the applicable fee programs.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no issues related to consistency with the Transportation Element.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
Scenic Highway Plan Component Goals, Objectives, and Policies				
Goal 1: Preserve and enhance unique or special aesthetic and visual resources through sensitive highway design and the regulation of development within the scenic corridor. **Objective 1.6:** Require sufficient setback from the scenic corridor, where feasible, for the purpose of preserving the corridor's scenic qualities.	**Consistent.** Through the Ranch Plan development, RMV will provide improvements consistent with the requirements of the Scenic Highways Plan Component for development adjacent to Cow Camp Road and Ortega Highway, the two roadways within the Project study area designated as local scenic highways. The Affordable Housing development would not be responsible for implementing improvements consistent with the Landscape Corridor standards (i.e., 25-foot landscape corridor) because these improvements would be provided as part of the roadway improvements. The development of the Affordable Housing sites would be consistent with the requirements established in the *Ranch Plan Planned Community Text*, which establishes height and setback requirements. This would ensure that the Affordable Housing development would not conflict with the Landscape Corridor requirements.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no Affordable Housing sites would be provided under the No Project Alternative, there would be no effect on the aesthetic qualities of the local scenic highways.
Resources Element				
Energy Resources Component Goals, Objectives, and Policies				
Goal 1: Maximize the conservation and wise use of energy resources in all residences, businesses, public institutions, and industries in Orange County.	**Consistent.** Scenario 1 would be developed in compliance with the California Building Code. Standard construction would support energy conservation. As this is a Program EIR, at this time, there are no specific design concepts to evaluate site specific energy conservation measures.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no impact on energy resources.
Goal 3: Maximize the conservation of energy resources in all future land use and transportation planning decisions. **Objective 3.1:** To achieve target residential densities along transportation corridors and in urban activity centers as set forth in the Air Quality Management Plan (AQMP). **Objective 3.2:** To reduce transportation demand by establishing balanced communities that provide housing, employment, recreational, and cultural opportunities for all segments of the population. **Policy 1:** Land Use – To plan urban land uses with a balance of residential, industrial,	**Consistent.** Though Scenario 1 proposes development of only residential uses, the Project would be in a compact community with a balance of employment, retail, and community uses. Providing a balance of land uses in close proximity to the Affordable Housing sites would create a greater potential for "internal capture" of vehicle trips (i.e., the trips would stay within the Ranch Plan). The anticipated growth is provided for in the Orange County Projections 2014 (OCP-2014) dataset. As discussed in Section 4.1, Air Quality, Scenario 1 is consistent with the 2016 South Coast Air Quality Management District's (SCAQMD's) AQMP and regional planning programs.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no impact on energy resources. However, if the County is to meet the RHNA requirements, consistent with the regional planning programs, it would need to identify another location to construct affordable housing.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
commercial, and public land uses as set forth in the Land Use Element. **Policy 3:** Energy Conservation – To encourage and actively support the utilization of energy conservation measures in all new and existing structures in the County.	As shown above in the consistency analysis of Resources Element Goal 1, Scenario 1 would be constructed in compliance with the California Building Code in an effort to energy conservation measures.			
Water Resources Component Goal, Objectives, and Policies				
Goal 1: Ensure an adequate dependable supply of water of acceptable quality for all reasonable uses. **Policy 1:** To ensure the adequacy of water supply necessary to serve existing and future development as defined by the General Plan.	**Consistent.** As discussed in Section 4.10, Utilities and Service Systems, of this EIR, a Water Supply Assessment (WSA) has been prepared consistent with the requirements of Senate Bill (SB) 610 and SB 221 for this Project. SMWD has confirmed that there is sufficient water supply to meet the projected 20-year water demand associated with Scenario 1. The units for the Affordable Housing Project will be incorporated into SMWD's 2016 Urban Water Management Plan.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no impact on water resources.
Housing Element				
Goal 1: An adequate supply of housing that varies sufficiently in cost, style, tenure, and neighborhood type to meet the economic and social needs of every existing and future resident of the county; and which provides sufficient housing opportunities to achieve a better jobs-housing balance for employees of businesses located in the unincorporated area. **Strategy 1a:** Continue to support affordable housing production as one of the County's priorities. **Action:** Facilitate the production of affordable units by offering incentives such as density bonus, expedited permit processing, modifications to development standards, tax-exempt conduit financing, infrastructure financing assistance and direct financial assistance in exchange for a proportional commitment to provide units at affordable prices or rents. **Action:** The County Planning Department's "Affordable Housing Project Manager" will continue to assist affordable housing developers through the County's application review and approval process. The Project manager will act as liaison between the developer and County staff to ensure that proposed projects are not unnecessarily delayed	**Consistent.** Scenario 1 would provide 555 low- and very low-income housing units. The units would be part of multi-family housing developments in a community that also includes single-family detached and age-restricted housing. Scenario 1 would not rely on County financial assistance and would ensure the units remain affordable for a minimum of 55 years.	**Consistent.** Scenario 2 would provide 740 low- and very low-income housing units. The units would be part of multi-family housing developments in a community that also includes single-family detached and age-restricted housing. Half of the units being developed in Scenario 2 would be constructed with public-sector support, which is consistent with the action associated with this goal and strategy.	**Consistent.** The analysis presented for Scenario 2 would also be applicable to Scenario 3; however, all the units provided (1,110 units) would rely on public-sector resources.	**Consistent.** As discussed above, the County Housing Element identifies multiple methods for the implementation of affordable housing in unincorporated Orange County in order to provide housing to meet the social needs of the county residents. Though the No Project Alternative would not directly contribute affordable housing, it would not conflict with the identified goal. The strategy and actions are actions that would be applied to projects proposing affordable housing; therefore, they would not be applicable to the No Project Alternative.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
Strategy 1b: Ensure that new large-scale development includes a sufficient range of housing types and densities in appropriate locations to facilitate the production of housing for all economic segments, including very-low- and extremely-low-income households, consistent with the County's quantified objectives. **Action:** Coordinate the location of major housing developments, particularly affordable housing and multi-family units, with existing and proposed highway and transit routes, major employment centers, shopping facilities and other services. **Action:** Encourage the provision of adequate sites at appropriate densities to accommodate affordable housing. **Action:** To assist the development of housing for lower-income households on larger sites, the County will facilitate parcel maps and/or lot line adjustments resulting in parcel sizes that facilitate multifamily developments affordable to lower-income households in light of state federal and local financing programs (i.e., 2 to 10 acres). The County will work with property owners and affordable housing developers to target and market the availability of sites with the best potential for development. In addition, the County will offer the following incentives for the development of affordable housing including but not limited to: • expediting the approval process for parcel maps that include affordable housing units, • ministerial (no public hearing) review of lot line adjustments, • deferral of fees for projects affordable to lower-income households, if feasible, • provide technical assistance to acquire funding, and • modification of development standards.	**Consistent.** Scenario 1 would provide 555 affordable housing units. The units would be located within various multi-family housing structures. As part of the Ranch Plan, Scenario 1 Affordable Housing sites would be located near employment centers, shopping facilities, and other services. At this time, the area has not been developed so there are no indications of future transit services that would be provided to serve the Ranch Plan. The Project would implement the AHIA with RMV, which calls for multi-family developments that are affordable to lower-income households on 2- to 10-acre parcels in the Ranch Plan. The sites designated for Affordable Housing range in size from 3 to 6 acres and are compatible with the recommended action.	**Consistent.** Scenario 2 would provide 740 affordable housing units. The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** Scenario 3 would provide 1,110 affordable housing units. The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Partially Consistent.** The No Project Alternative would provide limited affordable housing in the Ranch Plan because only the affordable units committed to in Planning Areas 1 and 2 are assured for construction. Though the No Project Alternative would miss an opportunity for providing additional affordable housing as part of new large-scale development, the approvals for the Ranch Plan do provide for a range of housing types and densities. This alternative does not preclude the ability of future development of housing for very-low and extremely-low income housing should funding sources become available.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
Goal 4: Reduce residential energy use within the County. **Strategy 4a:** Encourage the use of energy conservation features in residential construction, remodeling and existing homes **Action:** Continue to require new construction and remodeling projects to meet energy conservation requirements. **Action:** Provide information regarding energy efficiency measures in the Orange County Housing Opportunities Manual. **Action:** Provide clients with information regarding "CalGreen" – California's Green Building Code.	**Consistent.** As discussed under the Resources Element, Goal 1, Scenario 1 would be developed in compliance with the California Building Code. Standard construction would support energy conservation. As this is a Program EIR, at this time, there are no specific design concepts to evaluate site specific energy conservation measures.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, there would be no impact on energy resources.
Goal 5: To encourage the provision of child care facilities in new affordable housing developments. **Strategy 5:** Reduce regulatory obstacles for new child care facilities within affordable housing developments. **Action:** Both the Zoning Code and Housing Opportunities Manual allow the provision of child care in affordable housing developments utilizing the Housing Opportunities Overlay Zone program. The County's Child Care Coordinator will assist in the development of the criteria and requirements for child care facilities and family day care homes. All conditions and requirements applied to this use will be delineated in the Affordable Housing Agreement entered into between the County and developer for each affordable housing development.	**Consistent:** Currently, the Project does not identify child care facilities internal to the developments on the Affordable Housing site. This allows the number of units to be maximized on the acreage provided. However, the Ranch Plan does provide opportunities for development of child care facilities within the Planning Areas. The Subarea Plans in Planning Area 3 identify the provision to allow three daycare centers—one in Subarea 3.1 (in the community facilities use area, which contains a potential school site); one in Subarea 3.3 (in the area designated for community facilities); and one in Subarea 3.6 (in the community facilities use area, which contains a potential school site). The availability of these sites would serve the Affordable Housing sites, as well as the larger community. Given the size of the designated sites (3 to 6 acres), it is unlikely that there would be sufficient demand within each Affordable Housing site to support separate child care facilities.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** The No Project Alternative would not provide any additional affordable housing so there would be no increased demand for child care facilities.
Growth Management Element				
Goal 1: Reduce traffic congestion. **Goal 2:** Ensure that adequate transportation facilities, public facilities, equipment, and services are provided for existing and future residents. **Objective 3:** Sheriff/Fire/Paramedic – Adequate facilities and equipment, as determined through Growth Management Area (GMA) Facility Implementation Plans developed in consultation	**Consistent.** The development provided for with Scenario 1 would be phased with the implementation of the Ranch Plan. As part of the Ranch Plan, infrastructure improvements would be developed as the market rate units are constructed. Because the improvements internal to the Ranch Plan (roadways, fire stations, storm drains, and police services) would be designed and sized early in the development process, the	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 2 would also be applicable to Scenario 3.	**Consistent.** There would be no affordable housing constructed under the No Project Alternative; therefore, there is no need to provide additional infrastructure improvements, nor would there be additional impacts on the existing infrastructure networks.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
with the Fire Authority and Sheriff Department, shall be financed and implemented in a manner that ensure that the costs of necessary facilities and equipment for new development are borne by new development. The service levels established in the GMA Facility Implementation Plans shall be, at a minimum, equivalent to those service levels specified in the General Plan. **Policy 4:** Traffic Improvement Programs – Comprehensive traffic improvement programs shall be established to ensure that all new development provides necessary transportation facilities and intersection improvements as a condition of development approval. Participation in such programs shall be on a pro-rata basis and shall be required of all development projects except where an increased level of participation exceeding these requirements is established through negotiated legal mechanisms, such as a public facilities development agreement. **Policy 5:** Comprehensive public facility plans shall be established for fire, sheriff/police and library facilities. All development projects shall participate in such plans on a pro-rata basis and as a condition of development approval except where an increased level of participation exceeding these requirements is established in negotiated legal mechanisms, such as a public facilities development agreement.	plans would factor in the needs of the affordable housing residents. As discussed in Section 4.9, Transportation/Traffic, the Applicant would be responsible for payment of Road Fee Programs (refer to SC Trans-1) to fund roadway projects which would serve the proposed Affordable Housing Project.			
Goal 3: Protect the natural environment of Orange County. **Policy 7:** There shall be buffer zones established through Feature Plans, Specific Plans, and/or Scenic Corridor Plans which provide for the physical separation of major communities by means of open space areas/corridors. Said open space area/corridors will be based upon natural features such as creeks or prominent topographic or aesthetic features. It is recognized that the buffer zones established pursuant to this policy will not necessarily link Regional Parks or serve a recreational function.	**Consistent.** The Ranch Plan was developed in conjunction with the Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (NCCP/MSAA/HCP) and Special Area Management Plan (SAMP) planning programs. Through this integrated planning process, development areas were defined and approximately 75 percent (16,942 acres) of the land area in the Ranch Plan has been designated as open space. The affordable housing to be developed would be located in the designated development areas, thereby protecting the natural resources in the areas designated for open space. As discussed above under the Scenic Highways Plan Component, Policy 1.6, RMV will provide improvements consistent with the requirements	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** The No Project Alternative would not provide any additional affordable housing so there would be no impacts on the natural environment.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
	of the Scenic Highways Plan Component for development adjacent to Cow Camp Road and Ortega Highway, the two roadways within the Project study area designated as local scenic highways. The Landscape Corridor requirements identify a 25-foot setback for enhanced highway landscaping. These improvements would be provided as part of the roadway improvements.			
Noise Element				
Policy 4.1: To enforce the County's Noise Ordinance to prohibit or mitigate harmful and unnecessary noise within the County.	**Consistent.** As discussed in Section 4.5, the provisions of the County of Orange Noise Ordinance would be applicable to the construction of units in Scenario 1. This is reflected as standard condition of approval in the Mitigation Program.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no additional affordable housing would be constructed under the No Project Alternative, there would be no issues associated with the enforcement of the County's Noise Ordinance.
Policy 6: Noise Sensitive Land Uses – To identify and employ mitigation measures in order to reduce the impact of noise levels and attain the standards established by the Noise Element, for both interior areas and outdoor living areas for noise sensitive land uses. **Policy 6.2:** To continue enforcement of Chapter 35 of the Uniform Building Code, currently adopted edition, and the California Noise Insulation Standards (Title 25 California Administrative Code). **Policy 6.3:** To require that all new residential units have an interior noise level in living areas that is not greater than 45 decibels Community Noise Equivalent Level (CNEL) with it being understood that standard construction practices reduce the noise level by 12 decibels CNEL with the windows open and 20 decibels with the windows closed. Higher attenuation than listed above may be claimed if adequate field monitoring or acoustical studies are provided to and approved by the County. **Policy 6.5:** All outdoor living areas associated with new residential uses shall be attenuated to less than 65 decibels CNEL.	**Consistent.** To ensure compliance with applicable noise standards, all development would be required to comply with the California Building Code standards for noise insulation and structure design. Additionally, as discussed in Section 4.5, Noise, a standard condition of approval identified in the Mitigation Program is that, prior to issuance of a building permit, the applicant must demonstrate compatibility with applicable noise standards.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no additional affordable housing would be constructed under the No Project Alternative, there would be no conflict with the Noise-Element-established standards.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
Recreation Element				
Master Plan of Local Parks Goals, Objectives, and Policies				
Goal 1: Provide adequate local park sites to meet the recreation needs of existing and future residents and preserve natural resources within unincorporated Orange County. **Objective 1.1:** Designate local park sites which provide recreation development potential for existing and future County residents. **Goal 2:** Develop local park sites with recreation facilities designed to meet the active recreational needs and preserve natural resources of each community within unincorporated Orange County.	**Consistent.** As identified in Section 4.8, Recreation, the parkland currently identified in Planning Areas 1 through 4, exceeds the requirements of the Local Park Code and the Ranch Plan Planned Community Local Park Implementation Plan. The total parkland presently planned for the Ranch Plan is sufficient to meet the recreational needs of both Ranch Plan and Project residents.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to the development in Scenario 2 utilizing the Private-Sector Alternative. The Dedicated Lands are intended for the development of Affordable Housing so there would not be sufficient area to provide additional parkland for the sites being developed using public-sector resources. The Local Park Code does provide an option for payment of fees in lieu of the development of parkland. However, the Housing Element provides for the waiver of park fees for affordable housing projects. Even without the development of new parkland or payment of fees, Scenario 2 would be consistent with these goals and objective because there would be sufficient parkland in the Ranch Plan to accommodate the additional population associated with Scenario 2 and comply with all parkland requirements.	**Consistent.** The analysis presented for Scenario 2 for the Dedicated Sites being developed with public-sector resources would also be applicable to Scenario 3.	**Consistent.** Under the No Project Alternative, there would be no change from existing conditions. The same level of would continue to be implemented by the Ranch Plan.
Goal 3: Operate and maintain local park facilities for each community within unincorporated Orange County for which there exists a local park maintenance agency.	**Consistent.** As discussed above, the parkland provided by the Ranch Plan would accommodate the additional population associated with Scenario 1. All park facilities within the Ranch Plan would be maintained by the master maintenance corporation for the development.	**Consistent.** The analysis presented above regarding the reliance on Ranch Plan developed parkland would also be applicable to this goal. As discussed under Scenario 1, the parkland would be maintained by the master maintenance corporation for the development.	**Consistent.** The analysis presented for Scenario 2 would also be applicable to Scenario 3.	**Consistent.** Under the No Project Alternative, there would be no change from existing conditions. The same level of parkland and maintenance responsibilities would continue to be implemented by the Ranch Plan.
Policy 2.32: To acquire park lands by requiring residential developers to provide a minimum of 2.5 net acres of usable local park land (i.e., park land that is relatively level, served by utilities, for multipurpose playfields, court sports, etc.) for each prospective 1,000 residents.	**Consistent.** As noted previously, the Ranch Plan requires development of 96 acres of public and private parkland to support the residents of the Ranch Plan. This would exceed the County requirement for parkland and would create a "parks rich" community. The excess planned parkland would be sufficient to accommodate the additional population associated with Scenario 1.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, it would not be necessary to develop local park sites with recreation facilities.
Master Plan of Regional Riding and Hiking Trails Component Goals, Objectives, and Policies				
Goal 2: Create trail linkages between open space and recreation facilities, between community, municipal, state, and federal trail systems, and between the trail systems of surrounding counties. **Objective 1:** Implement and maintain a public regional riding and hiking trail system as depicted conceptually on the Trails Map. **Policy 1.1:** The dedication and acquisition of trail right-of-way and construction of public	**Consistent.** As discussed in Section 4.8, Recreation, three regional riding and hiking trails are in proximity to the Affordable Housing sites; however, none of them have been developed at this time. Additionally, these regional facilities do not traverse the Affordable Housing sites, but would be located in the Ranch Plan. Construction of these regional riding and hiking trails would occur in conjunction with the Ranch Plan development. In addition to the regional riding and hiking trails, there are three	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 2.	**Consistent.** The analysis presented for Scenario 1 would also be applicable to Scenario 3.	**Consistent.** As no affordable housing would be constructed under the No Project Alternative, it would not be necessary to implement and maintain a public regional riding and hiking trail system.

TABLE 4.4.4
GOALS AND POLICIES CONSISTENCY ANALYSIS

	Scenario 1	Scenario 2	Scenario 3	No Project Alternative
regional riding and hiking trails and improvements shall be pursued as a condition of approval of development projects (i.e., irrevocable offers of recreation easements) consistent with the Master Plan. **Policy 4.6:** Regional riding and hiking trails shall be integrated with community, municipal, county, state, and federal open space and recreational facilities and trail systems.	planned community trails and a multi-purpose pathway that will be provided in the Ranch Plan development.			
SCAG: Southern California Association of Governments; RHNA: Regional Housing Needs Assessment; RMV: Rancho Mission Viejo; SCRIP: South County Roadway Improvement Program; AQMP: Air Quality Management Plan; SCAQMD: South Coast Air Quality Management District; BMPs: Best Management Practices; WSA: Water Supply Assessment; SB: Senate Bill; SMWD: Santa Margarita Water District; AHIA: Affordable Housing Implementation Agreement; EIR: Environmental Impact Report; GMA: Growth Management Area; NCCP/MSAA/HCP: Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan; SAMP: Special Area Management Plan; CNEL: Community Noise Equivalent Level. Sources: SCAG 2016b, 2008; County of Orange 2013, 2005.				

Regional Housing Needs Assessment Evaluation

As shown in Table 4.4-2, unincorporated Orange County's RHNA target for affordable housing is 2,119 units. The reporting period for the RHNA is between January 2014 and October 2021. The 219 affordable housing units that have been committed for Planning Areas 1 and 2 but have not yet been completed will count toward the County's RHNA target.

Scenario 1: Full Private Sector Scenario

Scenario 1 would provide a total of 555 affordable housing units in Planning Areas 3, 4, 5, and 8, which when combined with the 219 units approved for Planning Areas 1 and 2, represents approximately 36 percent of the total amount needed to meet the current RHNA target. However, it should also be noted that it is highly unlikely that development in Planning Areas 5 and 8 would have commenced by 2021, which is the horizon date on these RHNA numbers. Reasonably, only a portion of the 405 Affordable Housing[9] units slated for development in Planning Areas 3 and 4 would be available by 2021. The precise amount of affordable units constructed by 2021 will be dependent on the phasing of the market rate development. However, the Housing Element, when demonstrating how the RHNA allocation would be achieved, assumes 360 affordable housing units in the Ranch Plan by 2021. With the 219 units approved in Planning Areas 1 and 2, only an additional 141 affordable units would be required to achieve the assumed level of affordable housing. This would only require one of the designated Affordable Housing sites in Planning Area 3 to be constructed by 2021. Therefore, it is reasonable that the Affordable Housing allocation assumed for the Ranch Plan would be met.

The RHNA goals for unincorporated Orange County pertain to all unincorporated territories. The Ranch Plan is only one part, though it does represent the largest undeveloped area within unincorporated Orange County. The RHNA allocations are done by jurisdiction, but do not specify specific locations within the jurisdiction where the Affordable Housing units would need to be constructed. However, the Housing Element does identify the Ranch Plan AHIA as a mechanism for implementing affordable housing requirements. The Ranch Plan is also identified as the only planned community, and final large landholding, in the unincorporated area that has a substantial amount of land remaining to be developed during the Housing Element timeframe. The Housing Element identifies that up to 1,800 lower-income units could be developed in the Ranch Plan, though it does not imply that these units would all be built by the 2021 RHNA horizon year.

Table X-40 in the Housing Element provides a land inventory compared to the RHNA requirements for unincorporated Orange County. This table projected 5,520 total units constructed in the Ranch Plan in the RHNA timeframe. Of those units, 360 of the units were assumed to be for lower income. The Housing Element assumes the remainder of the affordable units needed to meet the RHNA allocation would be provided elsewhere in the unincorporated areas of the county. Specifically, the Housing Element identifies that the Housing Opportunity Overlay Zone, adopted in 2006 and discussed further below, provides potential for an additional 2,032 affordable units in the RHNA allocation. Table X-40 in the Housing Element demonstrated that, based on the land use inventory, there was capacity for 2,636 affordable units while only

[9] Table 3-1 in Section 3.4.1 of this EIR provides an expected distribution of units for each of the development scenarios. The number of units is based on the number of acres of Dedicated Land being developed in each of the Planning Areas with an assumed density of 25 units per net acre. For Scenario 1 a total of 13.2 acres are assumed in Planning Area 3 and 2 acres in Planning Area 4. Combined this would result in 405 units in Planning Areas 3 and 4.

assuming that 360 of these units would be constructed within the Ranch Plan during the RHNA cycle.[10] This would exceed the current RHNA allocation for lower income housing. As previously indicated, there is already a commitment of 219 privately funded affordable units in Planning Areas 1 and 2.[11]

Though this scenario produces the fewest affordable units, it does not require any commitment of resources by the County, which provides flexibility to allocate resources to other parts of the County for affordable housing to address the remaining RHNA requirement. The Housing Element does identify that there has also been a shift in focus to residential development in several of the older unincorporated islands in the northern portion of the County and that affordable housing units could be provided through infill projects or redevelopment of underutilized properties. The Housing Element further discusses creating opportunities for new housing through infill development and decreasing costs through shared amenities and parking. The Housing Opportunities Overlay Zone (Section 7-9-148.6 of the Zoning Code) provides the option of affordable multi-family development on commercial and industrial sites, and in 2008 the Housing Opportunities Overlay Zone was expanded to include properties that are conventionally zoned for multi-family development along arterial highways. Under the Housing Opportunities Overlay Regulations affordable housing developments are permitted by right at a density of 25 units per acre, excluding density bonus.

Though this scenario does not maximize the number of affordable housing units, it would contribute to the provision of affordable housing to meet the needs of individuals in the low- and very low-income brackets. This scenario would be consistent with RHNA policies.

Impact Conclusion: *Scenario 1 would be consistent with the 2013–2021 RHNA requirements outlined in the Housing Element. Though Scenario 1 would provide fewer Affordable Housing units than other development scenarios, it would contribute to the provision of affordable housing to meet the housing needs of individuals in the low- and very low-income brackets. From the policy perspective of Threshold 4.4-1, there would be no impact associated with inconsistencies with the RHNA policies.*

Scenario 2: Combined Public and Private Sector Scenario

Much of the analysis provided for Scenario 1 would also be applicable to Scenario 2. Scenario 2 would provide a total of 740 affordable housing units in Planning Areas 3, 4, 5, and 8, which is approximately 35 percent of the total amount needed to meet the RHNA target. Similar to the discussion for Scenario 1, reasonably only a portion of the 590 units slated for Affordable Housing sites in Planning Areas 3 and 4 would be available by 2021. However, as previously stated, the Housing Element assumed 360 lower income housing units in the Ranch Plan by the 2021 RHNA horizon date. Given that there is already a commitment of 219 privately funded affordable units in Planning Areas 1 and 2, this expectation would be met.

[10] The 2,636 assumes the 360 affordable units in the Ranch Plan, 244 affordable units that are approved elsewhere in unincorporated Orange County outside of the Ranch Plan, and the opportunity for 2,032 affordable units in the Housing Opportunities Overlay Zone.

[11] The affordable units in Planning Areas 1 and 2 have applied for tax credits under the Low Income Housing Tax Credit Program. This state program provides for federal tax credits for private developers and investors who agree to set aside all or a portion of their units for low-income households and the elderly for no less than 15 years.

Though this Scenario does not maximize the number of Affordable Housing units, it would contribute to the provision of affordable housing to meet the needs of individuals in the low- and very low-income brackets. This scenario would be consistent with RHNA policies.

Impact Conclusion: *Scenario 2 would be consistent with the 2013–2021 RHNA requirements outlined in the Housing Element. Scenario 2 would contribute to the provision of affordable housing to meet the housing needs of individuals in the low- and very low-income brackets. From the policy perspective of Threshold 4.4-1, there would be no impact associated with inconsistencies with RHNA policies.*

Scenario 3: Full Public-Sector Scenario

Much of the analysis provided for Scenario 1 would also be applicable to Scenario 3. Scenario 3 would maximize the number of affordable housing units in Planning Areas 3, 4, 5, and 8. Scenario 3 would provide 1,110 affordable units within these Planning Areas, which is approximately 52 percent of the total amount needed to meet the RHNA target. Similar to the discussion for Scenario 1, reasonably only a portion of the 960 units slated for Affordable Housing sites in Planning Areas 3 and 4 would be available by 2021. However, as previously stated, the Housing Element assumed 360 lower income housing units in the Ranch Plan by the 2021 RHNA horizon date. Given that there is already a commitment of 219 privately funded affordable units in Planning Areas 1 and 2, this expectation would be met.

Provided sufficient funding is available, this Scenario maximizes the number of affordable housing units that would be available for individuals in the low- and very low-income brackets. This scenario would be consistent with the RHNA policies.

Impact Conclusion: *Scenario 3 would be consistent with the 2013–2021 RHNA requirements outlined in the Housing Element. Scenario 3 would potentially maximize the contribution of affordable housing to meet the requirements of individuals in the low- and very low-income brackets. From the policy perspective of Threshold 4.4-1, there would be no impact associated with inconsistencies with the RHNA policies.*

No Project Alternative

In the No Project Alternative, the designated Affordable Housing sites would be developed with approved Ranch Plan uses, rather than Affordable Housing units. As with the other alternatives, the 219 privately funded affordable units in Planning Areas 1 and 2 would contribute to the 360 affordable housing units identified in the Housing Element in the Ranch Plan as contributing to the RHNA 2021 requirements. Based on the Housing Element assumptions, there would be a shortfall of 141 affordable units in the Ranch Plan. However, as discussed above, the County Housing Element identifies that the Housing Opportunity Overlay Zone provides potential for an additional 2,032 affordable units in the RHNA allocation, which when combined with other approved projects, including the affordable units in Planning Areas 1 and 2, would exceed the current RHNA allocation for lower income housing. Therefore, the No Project Alternative would not result in significant impacts associated with consistency with the RHNA policies.

Impact Conclusion: *The No Project Alternative would not directly contribute to the provision of affordable housing consistent with the 2013–2021 RHNA requirements as outlined in the Housing Element. However, the Housing Opportunity Overlay Zone in the County's Housing Element provides opportunities for affordable housing in unincorporated Orange County that can achieve the RHNA allocation target. Therefore, from the policy perspective of Threshold 4.4-1, there would be no impact associated with inconsistencies with the RHNA policies.*

4.4.6 CUMULATIVE IMPACTS

As discussed in Section 4.0, the assessment of cumulative impacts is based on the projections contained in the OCP-2014 dataset, which reflects adopted local and regional plans. As discussed above, the Project development scenarios would not result in any Project-related impacts associated with a conflict to any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project. Since the development projected in the OCP-2014 dataset is consistent with the local General Plans and has been used for the regional planning programs, the cumulative scenario would be consistent with the any applicable land use plan, policy, or regulations.

The largest development in the Regional Statistical Area (RSA) containing the Project is the Ranch Plan.[12] The Affordable Housing sites would be developed in conjunction with the Ranch Plan, which would allow the site specific design to be developed in conjunction with the surrounding land uses, which would avoid potential conflict.

There would be no cumulative impacts associated with a conflict with applicable land use plan, policy, or regulations and no mitigation measures would be required.

4.4.7 MITIGATION PROGRAM

Impacts on land use and planning would be less than significant and no mitigation is required for development scenarios 1 through 3 and the No Project Alternative.

4.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

For Project development scenarios 1 through 3 and the No Project Alternative, the impacts on land use and planning would be less than significant and no mitigation is required.

4.4.9 REFERENCES

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[12] County of Orange is divided into ten Regional Statistical Areas (RSA), which are combinations of census tracts designated by SCAG for planning purposes. This is discussed further in Section 4.6, Population and Housing.

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4.5 NOISE

This section discusses Project-related impacts to the human noise environment in the vicinity of the Affordable Housing Implementation Program Project site. The noise analysis in this section provides background information on noise and community noise assessment criteria, and it examines noise impacts that would potentially occur during construction and operation of the proposed Project. Traffic noise worksheets are provided in Appendix D.

4.5.1 REGULATORY SETTING

State

California Noise Insulation Standards

Title 24 of the *California Code of Regulations*, also known as the California Building Standards Code or, more commonly, as the California Building Code, requires that residential structures other than detached single-family dwellings be designed to prevent exterior noise intrusion so that the interior Day-Night Average Sound Level (L_{dn}) or Community Noise Equivalent Level (CNEL) attributable to exterior sources does not exceed 45 A-weighted decibels (dBA or dB[A]) in any habitable room with closed windows (CBSC 2015).

County of Orange

General Plan

The Noise Element, one of nine elements of the *County of Orange General Plan*, contains official County policies on the conservation and management of resources (County of Orange 2005). The Noise Element defines a Noise Referral Zone as "that area with a total noise environment of 60 decibels Community Noise Equivalent Level (CNEL) or more . . . The intent of the Noise Referral Zone is to act as a triggering mechanism or flag for development proposals in areas potentially adversely affected by high noise levels. . . . unless it can be shown with certainty that the project is outside the area that has a CNEL of 60 or more decibels, an acoustical analysis report will be required".

The Noise Element also states, "A key objective of this Noise Element is to ensure that each County resident's quality of life is not affected adversely by high noise levels". The information from Tables VIII-2 and VIII-3 of the Noise Element, shown as Table 4.5-1 in this Section, defines the County's land use/noise compatibility standards. The Noise Element states that these standards apply to "situations where a new use is being proposed that is impacted by an existing noise source" and also "when an existing use is impacted by a new or expanded source of noise". For the latter case, "the project proponent is obliged to mitigate the impacts of the new source of noise".

TABLE 4.5-1
ORANGE COUNTY COMPATIBILITY MATRIX FOR LAND USE AND COMMUNITY NOISE EQUIVALENT LEVELS

Type of Use	65+ decibels CNEL	60 to 65 decibels CNEL
Residential	3a, b, e	2a, e
Commercial	2c	2c
Employment	2c	2c
Open Space		
Local	2c	2c
Community	2c	2c
Regional	2c	2c
Educational Facilities		
Schools (K through 12)	2c, d, e	2c, d, e
Preschool, college, other	2c, d, e	2c, d, e
Places of Worship	2c, d, e	2c, d, e
Hospitals		
General	2a, c, d, e	2a, c, d, e
Convalescent	2a, c, d, e	2a, c, d, e
Group Quarters	1a, b, c, e	2a, c, e
Hotel/Motels	2a, c	2a, c
Accessory Uses		
Executive Apartments	1a, b, e	2a, e
Caretakers	1a, b, c, e	2a, c, e

CNEL: Community Noise Equivalent Level

EXPLANATION AND DEFINITIONS

Action Required to Ensure Compatibility Between Land Use and Noise From External Sources

1: Allowed if interior and exterior community noise levels can be mitigated.

2: Allowed if interior levels can be mitigated.

3: New residential uses are prohibited in areas within the 65-decibel CNEL contour from any airport or air station and are allowed in other areas if interior and exterior community noise levels can be mitigated. The prohibition against new residential development excludes limited "infill" development within an established neighborhood.

Standards Required for Compatibility of Land Use and Noise

a: Interior Standard: CNEL of less than 45 decibels (habitable rooms only).

b: Exterior Standard: CNEL of less than 65 decibels in outdoor living areas.

c: Interior Standard: $L_{eq(h)}$ that is 45 to 65 decibels interior noise level, depending on interior use.

d: Exterior Standard: $L_{eq(h)}$ of less than 65 decibels in outdoor living areas.

e: Interior Standard: As approved by the Board of Supervisors for sound events of short duration such as aircraft flyovers or individual passing railroad trains.

Key Definitions

Habitable Room – Any room meeting the requirements of the Uniform Building Code or other applicable regulations, which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

Interior – Spaces that are covered and largely enclosed by walls.

$L_{eq(h)}$ – The A-weighted equivalent sound level averaged over a period of "h" hours. An example would be $L_{eq(12)}$ where the equivalent sound level is the average over a specified 12-hour period (such as 7:00 AM to 7:00 PM). Typically, time period "h" is defined to match the hours of operation of a given type of use.

Outdoor Living Area – Outdoor living area is a term used by the County of Orange to define spaces that are associated with residential land uses typically used for passive private recreational activities or other noise-

TABLE 4.5-1
ORANGE COUNTY COMPATIBILITY MATRIX FOR LAND USE AND COMMUNITY NOISE EQUIVALENT LEVELS

Type of Use	65+ decibels CNEL	60 to 65 decibels CNEL
sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, and others areas associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition include front yard areas, driveways, greenbelts, maintenance areas, and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).		
Source: County of Orange 2005		

Noise Ordinance

The County Noise Ordinance is codified as Title 4, Division 6 of the Codified Ordinances of the County of Orange. The Noise Ordinance designates the entire County, including incorporated and unincorporated areas, as Noise Zone 1. The Noise Ordinance establishes exterior and interior standards for Noise Zone 1 as shown in Tables 4.5-2 and 4.5-3.

TABLE 4.5-2
ORANGE COUNTY EXTERIOR NOISE STANDARDS

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7:00 AM–10:00 PM
	50 dB(A)	10:00 PM–7:00 AM
dB(A): A-weighted decibels Source: County of Orange 2015		

TABLE 4.5-3
ORANGE COUNTY INTERIOR NOISE STANDARDS

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7:00 AM–10:00 PM
	45 dB(A)	10:00 PM–7:00 AM
dB(A): A-weighted decibels Source: County of Orange 2015		

With respect to exterior noise levels, the Noise Ordinance states the following:

> (b) It shall be unlawful for any person at any location within the unincorporated area of the County to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person,

when the foregoing causes the noise level, when measured on any other residential property, either incorporated or unincorporated, to exceed:

(1) The noise standard for a cumulative period of more than thirty (30) minutes in any hour; or

(2) The noise standard plus five (5) dB(A) for a cumulative period of more than fifteen (15) minutes in any hour; or

(3) The noise standard plus ten (10) dB(A) for a cumulative period of more than five (5) minutes in any hour; or

(4) The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one (1) minute in any hour; or

(5) The noise standard plus twenty (20) dB(A) for any period of time.

(c) In the event the ambient noise level exceeds any of the first four (4) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

With respect to interior standards, the noise ordinance states the following:

(b) It shall be unlawful for any person at any location within the unincorporated area of the County to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured within any other dwelling unit on any residential property, either incorporated or unincorporated, to exceed:

(1) The interior noise standard for a cumulative period of more than five (5) minutes in any hour; or

(2) The interior noise standard plus five (5) db(A) for a cumulative period of more than one (1) minute in any hour; or

(3) The interior noise standard plus ten (10) db(A) for any period of time.

(c) In the event the ambient noise level exceeds either of the first two (2) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third noise limit category the maximum allowable noise level under said category shall be increased in reflect the maximum ambient noise level.

Section 4-6-7 of the Noise Ordinance exempts the following activities:

(b) Outdoor gatherings, public dances and shows, provided all events are conducted pursuant to a license issued by the County of Orange pursuant to Title 5 of the Codified Ordinances of the County of Orange.

(c) Activities conducted on any park or playground, provided such park or playground is owned and operated by a public entity.

(d) Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle or work.

(e) Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 PM and 7:00 AM on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

(i) Noise sources associated with the maintenance of real property, provided said activities take place between 7:00 AM and 8:00 PM on any day except Sunday or a Federal holiday, or between the hours of 9:00 AM and 8:00 PM on Sunday or a Federal holiday.

(j) Any activity to the extent regulation thereof has been preempted by State or Federal law.

4.5.2 METHODOLOGY

Noise Basics and Terminology

"Sound" is a vibratory disturbance created by a moving or vibrating source and is capable of being detected. "Noise" is defined as a sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. Although the terms "sound" and "noise" are often used synonymously, perceptions of sound and noise are highly subjective (Caltrans 2013b). The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment.

Decibels and Frequency

In its most basic form, a continuous sound can be described by its frequency or wavelength (pitch) and its amplitude (loudness). Frequency is expressed in cycles per second, or hertz. Frequencies are heard as the pitch or tone of sound. High-pitched sounds produce high frequencies; low-pitched sounds produce low frequencies. Sound pressure levels are described in units called the decibel (dB).

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB.

Perception of Noise and A-Weighting

A typical noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. The local sources can vary from an occasional aircraft or train passing by, to intermittent periods of sound (such as amplified music), to virtually continuous noise from, for example, traffic on a major highway.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale was devised; the A-weighted decibel scale (dBA or db[A]) approximates the frequency response of the average healthy ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Therefore, the "A-weighted" noise scale is used for measurements and standards involving the human perception of noise.

Human perception of noise has no simple correlation with acoustical energy. Due to subjective thresholds of tolerance, the annoyance of a given noise source is perceived very differently from person to person. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at 3 feet is approximately 60 dBA, while loud jet engine noises at 1,000 feet equate to 100 dBA, which can cause serious discomfort. Table 4.5-4 shows the relationship of various noise levels (in dBA) for commonly experienced noise events.

TABLE 4.5-4
NOISE LEVELS FOR COMMON ACTIVITIES

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
–	110	Rock Band
Jet Fly-over at 300 m (1,000 ft)	100	–
Gas Lawn Mower at 1 m (3 ft)	90	–
Diesel Truck at 15 m (50 ft) at 80 km/hr (50 mph)	80	Food Blender at 1 m (3 ft); Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower at 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area, Heavy Traffic at 90 m (300 ft)	60	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
–	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing
dBA: A-weighted decibels, m: meter, km/hr: kilometers per hour, ft: feet, mph: miles per hour. Source: Caltrans 2013b.		

Two noise sources do not "sound twice as loud" as one source. As stated above, a doubling of noise sources results in a noise level increase of 3 dBA. It is widely accepted that (1) the average healthy ear can barely perceive changes of a 3 dBA increase or decrease; (2) a change of 5 dBA is readily perceptible; and (3) an increase (or decrease) of 10 dBA sounds twice (or half) as loud (Caltrans 2013a). In community situations, noise exposure and changes in noise levels occur over a number of years, unlike the immediate comparison made in a field study situation. The generally accepted level at which changes in community noise levels become "barely perceptible" typically occurs at values greater than 3 dBA.

Noise Propagation

From the source to the receiver, noise changes both in level and frequency spectrum. The most obvious change is the decrease in noise level as the distance from the source increases. The manner in which noise reduces with distance depends on the factors described below.

Geometric Spreading from Point and Line Sources: Sound from a small localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. For point sources, such as heating, ventilation and air conditioning (HVAC) units or construction equipment, the sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of the distance (i.e., if the noise level is 70 dBA at 25 feet, it is 64 dBA at 50 feet). Vehicle movement on a road makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over some time interval. The sound level attenuates or drops off at a rate of 3 dBA per doubling of distance for line sources.

Ground Absorption: To account for the ground-effect attenuation (absorption), two types of site conditions are commonly used in noise prediction: soft site and hard site conditions. Hard sites (i.e., sites with a reflective surface between the source and the receiver, such as parking lots or smooth bodies of water) receive no excess ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. Soft sites are sites that have an absorptive ground surface (e.g., soft dirt, grass, or scattered bushes and trees) and receive an excess ground attenuation value of 1.5 dBA per doubling of distance.

Atmospheric Effects: Wind speed will bend the path of sound to "focus" (increase) it on the downwind side and make a "shadow" (reduction) on the upwind side of the source. At short distances, the wind has minor influence on the measured sound level. For longer distances, the wind effect becomes appreciably greater. Temperature gradients create effects similar to those of wind gradients, except that they are uniform in all directions from the source. On a sunny day with no wind, temperature decreases with altitude, giving a shadow effect for sound. On a clear night, temperature may increase with altitude, focusing sound on the ground surface.

Shielding by natural and man-made features, noise barriers, diffraction, and reflection*:* A large object in the path between a noise source and a receiver can significantly attenuate noise levels at that receiver location. The amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain or landform features as well as man-made features (e.g., buildings and walls) can significantly alter noise levels. For a noise barrier to work, it must be high enough and long enough to block the view from the receiver to a road or to the noise source. Effective noise barriers can reduce outdoor noise levels at the receptor by up to 15 dB.

Noise Descriptors

Several rating scales (or noise "metrics") exist to analyze effects of noise on a community. These scales include the equivalent noise level (L_{eq}), the CNEL, and the day-night average sound level (DNL or L_{dn}). Average noise levels over a period of minutes or hours are usually expressed as dBA L_{eq}, which is the equivalent noise level for that period of time. The period of time averaging may be specified; for example, $L_{eq(3)}$ would be a 3-hour average. When no period is specified, a one-hour average is assumed. Noise of short duration (i.e., substantially less than the averaging period) is averaged into ambient noise during the period of interest. Thus, a loud noise lasting

many seconds or a few minutes may have minimal effect on the measured sound level averaged over a one-hour period.

To evaluate community noise impacts, L_{dn} was developed to account for human sensitivity to nighttime noise. L_{dn} represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into 2 periods: daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM). The nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels. CNEL is similar to L_{dn} except that it separates a 24-hour day into 3 periods: daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 7:00 AM). The evening sound levels are assigned a 5 dBA penalty and the nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels.

Several statistical descriptors are often used to describe noise including L_{max}, L_{min}, and $L_{\%}$. L_{max} and L_{min} are respectively the highest and lowest A-weighted sound levels that occur during a noise event. The $L_{\%}$ signifies the noise level that is exceeded x percent of the time; for example, L_{10} denotes the level that was exceeded 10 percent of the time.

Traffic Noise

The analysis of traffic noise impacts is evaluated based on two criteria:

1. The change in traffic noise (increase or decrease) attributable to traffic generated by the Project and
2. The absolute traffic noise level that results with inclusion of traffic from the Project being evaluated in combination with other vehicle traffic.

Both criteria must be exceeded for a significant impact to occur. With respect to Criterion 1, changes in traffic noise levels were calculated based on the changes in traffic volumes.[1] Traffic volumes used to calculate traffic noise level changes for the Project are included in the Project's traffic study described in Section 4.8 of this EIR and in Appendix E.

The calculation of relative noise levels contains an inherent assumption that the mix of traffic (i.e., autos and trucks) is the same in the Without Project and With Project scenarios being compared. Here, there is no reason to believe that future changes in the traffic mix would considerably affect the calculated traffic noise level changes in the Project area. Relative truck volumes would need to change by more than a factor of 2 for the noise level change to vary by 0.4 dB over the assumption that they remain constant. There is no evidence that relative truck volumes would change by even this amount in the Project area and even with the addition of truck deliveries.

The noise levels for roadways in the Project traffic study area were estimated using the Federal Highway Administration's (FHWA's) Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model determines a predicted noise level through a series of adjustments to a reference sound level. These adjustments account for traffic flows, speed, truck mix, varying distances from

[1] Changes in traffic noise are calculated by taking 10 times the base 10 logarithm of the ratio of the 2 traffic volumes of interest. These may be the future and existing traffic volumes or the future traffic volumes with and without the Project.

the roadway, length of exposed roadway, and noise shielding. The calculations do not take into account the effect of any noise barriers or topography that may affect ambient noise levels.

Point Source Noise

The distance from the noise source to a receptor is a primary consideration in determining the actual noise level experienced at the receptor. Most reference noise levels are specified at a distance of 50 feet from the source. The calculation of noise from a point source (e.g., construction or HVAC equipment) at other distances uses the equation.

$L_D = L_{50} - 20 \log (D/50)$, where

L_D is the noise level at a distance D from the noise source, and

L_{50} is the noise level at a distance of 50 feet from the source.

The equation is the mathematical expression for a noise level being reduced by 6 dBA for each doubling of distance from the source.

Construction equipment can be considered to operate in two modes: stationary and mobile. Noise impacts from stationary equipment are assessed from the center of the equipment, while noise impacts for mobile construction equipment are assessed as emanating from the center of the equipment activity or construction site. For construction equipment, the average noise level, L_{eq}, is related to the maximum noise level, L_{max}, by the following equation:

$L_{eq} = L_{max} + 10 \log (UF)$, where,

L_{eq} is the average noise level from a piece of construction equipment at 50 feet,

L_{max} is the maximum noise level from a piece of construction equipment at 50 feet, and

UF is the acoustic utilization factor, which is the fraction of time that a piece of construction equipment is typically at full power.

The L_{max} and UF data for construction equipment are tabulated in the impact analysis in Section 4.5.5, Threshold 3.5-4.

Groundborne Vibration

In contrast to airborne noise, groundborne vibration is not a common environmental problem. Some common sources of groundborne vibration are construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. Trains and similar rail vehicles can also produce vibration. It is unusual for vibration from sources such as buses and trucks to be perceptible.

In quantifying vibration, the peak particle velocity (ppv) is most frequently used to describe vibration impacts and is typically measured in inches per second (in/sec). Vibration levels that may cause annoyance to humans are described using the vibration decibel (VdB). Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source.

Vibration propagation is calculated using the following formula (FTA 2006):

$PPV_{equip} = PPV_{ref} \times (25/D)^n$ where

PPV_{equip} is the ppv in in/sec adjusted for distance of the receiver from the source,

PPV_{ref} is the ppv in in/sec at the reference distance of 25 feet,

D is the distance from the source to the receiver, and

n is a value based on soil material.

The Federal Transit Administration (FTA), Office of Planning's *Transit Noise and Vibration Impact Assessment* (FTA Impact Assessment) suggests using a value of 1.5 for n for all equipment (FTA 2006).

4.5.3 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

The County of Orange has established an alternative baseline that assumes the implementation of the Ranch Planned Community (Ranch Plan) as part of the baseline conditions. Currently, development consistent with the approvals for the Ranch Plan are limited to Planning Areas 1 and 2. Planning Area 1, known as the Village of Sendero, is predominately built out. Planning Area 2, known as the Village of Esencia, is under construction and the initial phase will be occupied in early 2016. The Master Area Plan and Subarea Plans for Planning Areas 3 and 4 were approved in February 2015 and grading is anticipated to start in late 2017 or early 2018. Construction is anticipated in 2019. No Master Area Plans or Subarea Plans have been processed for Planning Areas 5 and 8. Traffic noise in the Planned Community would be the primary noise source under the alternative baseline conditions.

Sensitive Noise Receptors

The Orange County General Plan Noise Element defines sensitive land uses as residential, schools, hospitals, and places of worship. Under the alternative baseline condition, the Ranch Plan would be developed. The sensitive noise receptors would be residential, apartments, and schools in each Planning Area in the Ranch Plan. Since the construction of the Affordable Housing sites would be done in conjunction with the development of the market rate units, it is anticipated there would be sensitive noise receptors adjacent to the Affordable Housing units in each of the Planning Areas.

As indicated above, there is existing residential development in Planning Areas 1 and 2, which is west of the nearest proposed Affordable Housing site in Planning Area 3 (approximately 3 miles and 1 mile, respectively). In addition, Capistrano Unified School District (CUSD) has a planned kindergarten through eighth grade school site located Planning Area 2, which is expected to be open in Fall 2017. The school, known as Esencia School, will be located in Subarea 2.1, and will be approximately 1 mile west of the nearest Affordable Housing site.

Though currently there is employee housing in Planning Area 3, these units would be displaced by the grading and development of the Planning Area. Therefore, these noise sensitive uses would not exist at the time the Affordable Housing is developed.

Other noise sensitive uses outside of the Ranch Plan include:

- Coto de Caza, a residential community, located, at the closest point, approximately ½ mile north to the nearest designated Affordable Housing site in Planning Area 3
- Wagon Wheel, a residential community, located, at the closest point, approximately ½ mile northwest to the nearest designated Affordable Housing site in Planning Area 3
- Ronald W. Caspers Wilderness Park, located, at the closest point, approximately $^{3}/_{4}$ mile east to the nearest designated Affordable Housing site in Planning Area 3
- Talega Valley, a residential community, located, at the closest point, approximately $^{1}/_{3}$ mile south of the boundary of Planning Area 5 and approximately $^{1}/_{3}$ mile west of the boundary of Planning Area 8 (the Affordable Housing site locations have not been identified for Planning Areas 5 and 8 so the distance is to the Planning Area boundaries).

The location of these land uses are shown on Exhibit 4.4-2, Surrounding Land Uses, in Section 4.4 of this EIR.

4.5.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to noise if it would:

Threshold 4.5-1 Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.

Threshold 4.5-2 Expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Threshold 4.5-3 Cause a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Threshold 4.5-4 Cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

As discussed in Section 2.3.1, Issues to be Addressed in the Environmental Impact Report, the thresholds pertaining to noise associated with airports and private landing strips were focused out of the EIR at the time the Notice of Preparation was issued because there are no airports or landing strips in proximity to the Affordable Housing sites.

Impact Criteria

The Project would be considered to have a significant noise effect if:

- Short-term construction noise impacts would violate the provisions of the County of Orange Noise Ordinance; or
- Both of the following criteria are met:

a. The project traffic results in a substantial noise level increase on a roadway segment adjacent to a noise-sensitive land use (e.g., residential use) (a substantial noise increase is defined as an increase of 3 dB or more); and

b. The resulting "future with project" noise level exceeds the criteria for the noise-sensitive land use, as identified above, for the County of Orange. The following interior and exterior noise standards apply to the proposed Project:

   - 45 dBA CNEL residential interior noise levels
   - 65 dBA CNEL residential exterior noise levels

Off-site impacts resulting from on-site activities, both temporary and long-term, are measured against the Noise Ordinance standards. Construction activities must also comply with these standards.

Long-term off-site impacts from traffic noise are measured against two criteria and both criteria must be met for a significant impact to be identified. First, traffic generated by the project must cause a substantial noise level increase on a roadway segment adjacent to a noise-sensitive land use. Second, the resulting "Future With Project" noise level must exceed the criteria level for the noise-sensitive land use. For Project analysis purposes, the criteria level is the Orange County General Plan Noise Element's standard of 65 CNEL (outdoor) for residential land uses. Other land uses would permit a higher noise level and are therefore not addressed in this analysis.

In community noise assessment, changes in noise levels greater than 3 dB are often identified as significant, while changes less than 1 dB will not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. However, in a community noise situation, noise exposures are over a long period of time, and changes in noise levels occur over years rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB; it appears as though 3 dB is appropriate for most people. For the proposed Ranch Plan project, a 3 dB traffic noise level increase due to the Project is considered substantial.

Cumulative impacts are measured by an assessment of the total noise increase due to the Project together with other growth in the area as compared to existing conditions. Because increases over existing conditions will take place over a long period of time, a 3 dB cumulative increase over existing conditions would be considered substantial. Therefore, for purposes of this noise analysis, a cumulative noise increase is considered a significant cumulative impact if the cumulative increase over existing conditions would be 3 dB or more, and the resulting future noise level would exceed the interior noise level standard of 45 CNEL or the exterior noise level standard of 65 CNEL.

Long-term on-site traffic noise impacts are measured against the noise level limits applied by the County (Tables 4.5-2 and 4.5-3). Long-term on-site impacts associated with on-site activities are measured against the Noise Ordinance standards.

4.5.5 IMPACT ANALYSIS

Threshold 4.5-1

Would the Project expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

All Project Development Scenarios

Construction activities are exempt from the quantitative limits of the Orange County Noise Ordinance provided that construction does not take place between the hours of 8:00 PM and 7:00 AM on weekdays, including Saturday, or at any time on Sunday or a federal holiday. In order to avoid the generation of noise levels in excess of the Noise Ordinance standards, the Project would incorporate Standard Conditions of Approval (SCs) NOI-1 and NOI-2. SC NOI-1 would limit construction to specified hours. SC NOI-2 would require all construction equipment operated within 1,000 feet of a dwelling to be equipped with properly operating and maintained mufflers. SC NOI-2 also requires that stockpiling and/or vehicle staging areas be located as far as practicable from dwelling units. With implementation of SC NOI-1 and SC NOI-2, construction would conform to applicable standards and the impact would be less than significant.

Noise Generated by Operational On-Site Sources

The primary on-site noise sources at residential buildings would be HVAC systems. Noise would also be generated by swimming pool equipment. Additionally, there would be the typical noise sources associated with residential development including, but not limited to, children playing; facilities maintenance activities; noise from parking garages; and barking dogs. As discussed in Section 4.5.1, maintenance activities during the day are exempt from the noise ordinance limits. Noise from playing, parties, and other residential activities may exceed 55 dBA occasionally at property lines, but these exceedances are rarely of the duration to exceed the allowable time limits of the Noise Ordinance and the 30-minute averages would generally be less than 55 dBA. Thus, noise from these non-HVAC sources would not be anticipated to exceed the limits of the Orange County Noise Ordinance.

The Orange County Noise Ordinance limits exterior noise levels at residential properties, as described in Section 4.5.1 and Table 4.5-2. The proposed Project would have multi-family residential units. These residential buildings are in Noise Zone 1 by County standards. Due to the programmatic nature of this EIR, the precise location of buildings or equipment to be used is not known. In order to ensure that that on-site noise sources would not exceed the noise ordinance limits, the Project would incorporate SC NOI-5, which requires an acoustical analysis for HVAC systems and other mechanical equipment at all proposed buildings that demonstrates compliance with the County Noise Ordinance requirements for residential buildings.

Noise and Land Use Compatibility

As described in Section 4.5.1, the Orange County General Plan Noise Element includes the noise compatibility guidelines shown in Table 4.5-1. These guidelines and applicable sections of the

California Building Code are used to evaluate the proposed Project's compatibility with future ambient noise levels.

As mentioned above, there are total ten potential Affordable Housing sites selected for Planning Areas 3, 4, 5, and 8. Among them, seven were identified in the Planning Area 3 Subarea Plans and one was identified in the Planning Area 4 Subarea Plans. There will be one future Affordable Housing site in Planning Area 5 and one in Planning Area 8. The future Affordable Housing sites in Planning Areas 5 and 8 will be determined in conjunction with the approval of Master Area Plans and Subarea Plans. Based on current phasing concepts (see Section 3.4.3, Project Phasing) this is not expected to occur until after the development of Planning Areas 3 and 4 (construction is expected to occur after 2025).

Three affordable housing scenarios were analyzed in the traffic study:

- Scenario 1: Full Private-Sector Scenario (555 Affordable Housing Units)
- Scenario 2: Combined Public- and Private-Sector Scenario (740 Affordable Units)
- Scenario 3: Full Public-Sector Scenario, (1,110 Affordable Units)

The primary and highest noise levels at the Project site would be from automobile and truck traffic on roadways inside or outside the Planning Areas. The highest forecasted traffic volumes on these roadway are in the 2035 scenario for Scenario 3; these volumes provide the anticipated noise levels shown in Table 4.5-5 (Stantec 2015). The trip generation for Scenarios 1 and 2 would be less than for Scenario 3, and the noise levels on the road segments listed in Table 4.5-5 would be less for Scenarios 1 and 2 than for Scenario 3. The differences between the scenarios are within the accuracy of forecasting; therefore, Table 4.5-5 is representative of all three Project development scenarios and represents a worst case.

TABLE 4.5-5
DISTANCE TO 65 DBA CNEL CONTOUR FOR ROADWAY SEGMENTS

Roadway Segment	CNEL at 100 ft.	Distance to 65 dBA CNEL Contour (ft)
Planning Area 3		
Cow Camp Rd (East of Legado Dr)	69.3	271
Cow Camp Rd (West of Grandeza Dr)	68.8	237
Legado Dr (North of Cow Camp Rd)	67.6	181
Legado Dr (South of Grandeza Dr)	65.1	102
Grandeza Dr (South of Legado Dr)	61.6	45
Grandeza Dr (North of Cow Camp Rd)	63.3	68
Planning Area 4		
Ortega Hwy near Planning Area 4	65.9	124
Planning Area 5		
Legado Dr (South of Ortega Hwy)	63.3	68
Planning Area 8		
Avenida Pico near Planning Area 8	67.3	170
CNEL: Community Noise Equivalent Level; ft: feet; dBA: A-weighted decibel		

To be compatible with the 65 dBA CNEL noise contour, each proposed Affordable Housing site adjacent to a main roadway segment (i.e., those listed in Table 4.5-5) should be set back at the calculated distance from the roadway centerline or appropriate sound attenuation provided as part of the Project design. Where achieving the prescribed setback is not feasible and in order to avoid potentially significant noise/land use compatibility impacts, SC NOI-3 and SC NOI-4 would be applicable. SC NOI-3 requires an acoustical analysis demonstrating that Project design features would ensure that residential exterior and interior noise levels would not exceed applicable State Building Code and County General Plan standards. SC NOI-4 requires that applicants perform field testing in accordance with Title 24 Regulations to verify compliance with Field Sound Transmission Class (FSTC) and Field Impact Insulation Class (FIIC) standards if necessary. With implementation of SC NOI-3 and SC NOI-4, the impact would be less than significant.

Impact Conclusion: *Noise-generating construction activities would occur during the hours specified in the Orange County Noise Ordinance. Enforcement of the hour limits would be through SC NOI-1 and SC NOI-2, and the impact would be less than significant. On-site stationary HVAC equipment and other mechanical equipment (e.g., pool pumps) have the potential to exceed the noise level limits of the Orange County Noise Ordinances. Impacts would be less than significant with implementation of SC NOI-5. Year 2035 traffic noise could create a potential noise incompatibility with surrounding land uses. SC NOI-3 and SC NOI-4 would require Project design to reduce exterior and interior noise levels to the levels specified in the Orange County General Plan and State Building Code. With implementation of SC NOI-3 and SC NOI-4, the impact for Threshold 4.5-1 would be less than significant.*

No Project Alternative

In the No Project Alternative, the designated Affordable Housing sites would be developed with approved Ranch Plan uses, rather than Affordable Housing units. As such, there would be no Project-related construction or operational noise generation at the proposed sites. No noise impact would occur with this alternative.

Impact Conclusion: *With the No Project Alternative there would be no noise impact because there would be no construction activities or increased development on the Affordable Housing sites. Therefore, pursuant to Threshold 4.5-1 there would be no impacts.*

Threshold 4.5-2

Would the Project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

All Project Development Scenarios

Construction

There are no applicable Orange County standards for structural damage from vibration. In the absence of County standards, the California Department of Transportation (Caltrans) vibration damage potential guidelines have been used, which are shown in Table 4.5-6.

TABLE 4.5-6
VIBRATION DAMAGE THRESHOLD CRITERIA

Structure and Condition	Maximum ppv (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

ppv: peak particle velocity; in/sec: inch(es) per second

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013a.

It is assumed that the nearest structures to the Project construction areas would be nearby residential buildings. In terms of the classifications in Table 4.5-6, these structures are

considered the equivalent of "New residential buildings". Therefore, the criterion for a significant impact for continuous/frequent intermittent sources is 0.5 ppv in/sec.

Similar to structural damage from vibration, there are no County applicable standards for human annoyance from construction vibration. The Caltrans vibration annoyance potential guideline thresholds are shown in Table 4.5-7. Based on the guidance in Table 4.5-7, the "distinctly perceptible" vibration level of 0.24 ppv in/sec is used in this analysis as the threshold for a potentially significant vibration impact for human annoyance.

TABLE 4.5-7
VIBRATION ANNOYANCE CRITERIA

Average Human Response	ppv (in/sec)
Severe	2.0
Strongly perceptible	0.9
Distinctly perceptible	0.24
Barely perceptible	0.035
ppv: peak particle velocity; in/sec: inch(es) per second Source: Caltrans 2013a.	

Pile driving and blasting are generally the sources of the most severe vibration during construction. Pile driving and blasting are not anticipated during Project construction. There would be no demolition and there would be some on-site grading for foundations, utilities, and other facilities. The provisions of the Affordable Housing Implementation Agreement (AHIA), require Rancho Mission Viejo (RMV) to provide the County of Orange with graded sites; provide access; and extend utilities to the parcels. The construction noise associated with the Project would be from finish grading and physical building construction.

Table 4.5-8 summarizes typical vibration levels measured during construction activities for various vibration-inducing pieces of equipment at a distance of 25 feet.

TABLE 4.5-8
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment		ppv at 25 ft (in/sec)
Pile driver (impact)	upper range	1.518
	typical	0.644
Pile driver (sonic)	upper range	0.734
	typical	0.170
Vibratory roller		0.210
Large bulldozer		0.089
Caisson drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003
ppv: peak particle velocity; ft: feet; in/sec: inches per second. Source: Caltrans 2013a; FTA 2006.		

Equipment for finish grading and physical building construction may include small bulldozers, a backhoe, a forklift, and a crane. This equipment would generate less vibration compared to equipment for demolition or mass grading. Large loaded trucks would not be anticipated on the Affordable Housing sites because the mass grading would be completed. However, a loaded truck is considered for a worst case analysis. Based on the data in Table 4.5-8, the maximum construction vibration with a loaded truck at a distance of 12 feet from a nearby residential building, which is not likely, would be 0.23 ppv in/sec. The vibration would not exceed the structural damage significance threshold of 0.5 ppv in/sec (as stated in the text following Table 4.5-6) or the annoyance significance criterion of 0.24 ppv in/sec (as stated in the text following Table 4.5-7). Vibration impacts from all other fine grading and building equipment would be less than from a loaded truck. The impact would be less than significant.

Operational

Vibration Produced by the Proposed Project

There are no anticipated operational land uses that would produce discernable vibration.

Vibration from Highway Traffic Sources to the Proposed Project Site

There are no federal requirements directed specifically to highway traffic-induced vibration. All studies the highway agencies have done to assess the impact of operational traffic-induced vibrations have shown that both measured and predicted vibration levels are less than known criteria for structural damage to buildings. Normal living activities (e.g., closing doors in a building) have been shown to create greater levels of vibration than highway traffic (FHWA 2011). As a result, vibration from on-site or off-site traffic would be less than significant.

Impact Conclusion: *Structural damage or annoyance vibration impacts from potential construction activities would be less than significant; no mitigation is*

required for Threshold 4.5-2. Potential exposure of future occupants of the Project sites to vibration from highway operations would be less than significant.

No Project Alternative

In the No Project Alternative, the designated Affordable Housing sites would be developed with approved Ranch Plan uses, rather than Affordable Housing units. However, there would be no Project-related vibration impact with this alternative.

Impact Conclusion: *The No Project Alternative would not have an impact for Threshold 4.5-2 because there would be no construction activities or new Project-related uses on the Affordable Housing sites.*

Threshold 4.5-3

Would the Project cause substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Traffic-Related Noise Impacts

Long-term traffic-related noise impacts are associated with increased noise from traffic generated by the proposed Project. The noise levels for roadways in the Project traffic study area were estimated using the FHWA's Highway Traffic Noise Prediction Model described in Section 4.5.2. Scenario 3 was selected for quantifying the potential noise impact analysis because this scenario would provide the greatest number of affordable housing units and, as a result, would have the largest trip generation.

To estimate noise level increases and impacts due to the development of the proposed Project, noise levels were calculated from the traffic volumes provided for three scenarios included in the Project traffic report, as discussed below (Stantec 2015). As stated in Section 3.4.4, Alternative California Environmental Quality Act Baseline, and analysis in this EIR (and the supporting Traffic Report), assumes the buildout of the Ranch Plan was included as part of the baseline conditions. The With Project (Scenario 3) noise increase represents how much the noise levels increase with Project-generated traffic compared to Without Project conditions. The Project's traffic analysis provided With Project and Without Project traffic volumes for 27 roadway segments in the Project study area for the following three scenarios:

- Alternative Existing Baseline Conditions Without/With Project
- Long-Range (Year 2035) Conditions Without/With Project, Without State Route (SR) 241 Extension
- Long-Range (Year 2035) Conditions Without/With Project, With SR-241 Extension

Noise level increases for Scenario 3 were calculated and the five segments with the greatest noise increase in the each scenario are shown in Tables 4.5-9 through 4.5-11, respectively.

Because there no significant noise impact is identified with Scenario 3, there would be no significant noise impact with Scenarios 1 and 2.

Scenario 1: Full Private-Sector Scenario

Scenario 1 would build fewer affordable housing units and would generate less traffic than Scenario 3. Traffic noise impacts for Threshold 4.5-3 would be less than significant for Scenario 3. Therefore, Scenario 1 would also have a less than significant impact.

Impact Conclusion: *Scenario 1 would not cause a substantial permanent increase in ambient noise levels in the Project vicinity when compared to levels existing without the Project; therefore, Scenario 1 have a less than significant impact for Threshold 4.5-3.*

Scenario 2: Combined Public and Private Sector Financing Scenario

Scenario 2 would build fewer affordable housing units and would generate less traffic than Scenario 3. Traffic noise impacts for Threshold 4.5-3 would be less than significant for Scenario 3. Therefore, Scenario 2 would also have a less than significant impact.

Impact Conclusion: *Scenario 2 would not cause a substantial permanent increase in ambient noise levels in the Project vicinity when compared to levels existing without the Project; therefore, Scenario 2 would have a less than significant impact for Threshold 4.5-3.*

Scenario 3: Full Public-Sector

As previously identified, Scenario 3 was selected for the quantified noise impact analysis because this scenario would provide the greatest number of affordable housing units and, as a result, would have the largest trip generation.

Long-Term Noise Impact Criteria

Orange County has not established thresholds for significant noise impacts caused by Project-generated traffic. Typically, long-term, off-site impacts from traffic noise are measured against two criteria. Both of the following criteria must be met for a significant impact to be identified:

1. Project traffic must cause a substantial noise level increase on a roadway segment adjacent to a noise-sensitive land use.
2. The With Project noise level must exceed the exterior noise-land use impact criterion for a noise-sensitive land use.

As discussed in Section 4.5.4, the substantial noise level increase by Project traffic is defined as an increase of 3 dBA or more and the Orange County General Plan Noise Element's standard of 65 CNEL (outdoor) for residential land uses.

The With Project noise increase represents how much the noise levels increase with Project-generated traffic compared to Without Project conditions. The Project's traffic analysis provided With Project and Without Project traffic volumes for 27 roadway segments in the Project study area for the three above-listed scenarios. Noise level increases were calculated and the five segments with the greatest noise increase in the each scenario are shown in Tables 4.5-9 through 4.5-11, respectively.

TABLE 4.5-9
TRAFFIC NOISE INCREASES FOR ALTERNATIVE BASELINE CONDITIONS

Street	CNEL at 50 feet from roadway centerline (dBA)			Adjacent Sensitive Receptor?	Potential Impact?
	No Project	With Project Scenario 3	Project Contribution		
Legado Dr (South of Grandeza Dr)	68.0	68.5	0.5	Yes	No
Antonio Pkwy (Sendero Way to O'Neill Dr)	76.0	76.5	0.5	Yes	No
Chiquita Cyn Rd (West of Legado Dr)	69.8	70.1	0.3	Yes	No
Antonio Pkwy (Cow Camp Rd to Sendero Way)	76.2	76.5	0.3	Yes	No
Chiquita Cyn Rd (East of Los Patrones Pkwy)	70.1	70.4	0.3	Yes	No
CNEL: Community Noise Equivalency Level; dBA: A-weighted decibels.					

TABLE 4.5-10
TRAFFIC NOISE INCREASES FOR YEAR 2035
WITHOUT THE STATE ROUTE 241 EXTENSION

Road/Segment	CNEL at 50 feet from roadway centerline (dBA)			Adjacent Sensitive Receptor?	Potential Impact?
	No Project	With Project Scenario 3	Project Contribution		
Legado Dr (South of Grandeza Dr)	68.0	68.5	0.5	Yes	No
Chiquita Cyn Rd (West of Legado Dr)	69.8	70.1	0.3	Yes	No
Chiquita Cyn Rd (East of Los Patrones Pkwy)	70.4	70.7	0.3	Yes	No
Legado Dr (North of Cow Camp Rd)	70.7	71.0	0.3	Yes	No
Cow Camp Rd (Chiquita Cyn Rd to Los Patrones Pkwy)	73.9	74.2	0.3	Yes	No
CNEL: Community Noise Equivalency Level; dBA: A-weighted decibels					

TABLE 4.5-11
TRAFFIC NOISE INCREASES FOR YEAR 2035
WITH STATE ROUTE 241 EXTENSION

Road/Segment	CNEL at 50 feet from roadway centerline (dBA)			Adjacent Sensitive Receptor?	Potential Impact?
	No Project	With Project Scenario 3	Project Contribution		
Legado Dr (South of Grandeza Dr)	67.4	68.0	0.6	Yes	No
Chiquita Cyn Rd (East of Los Patrones Pkwy)	70.1	70.4	0.3	Yes	No
Chiquita Cyn Rd (West of Legado Dr)	70.1	70.4	0.3	Yes	No
Legado Dr (North of Cow Camp Rd)	71.0	71.3	0.3	Yes	No
Cow Camp Rd (Chiquita Cyn Rd to Los Patrones Pkwy)	74.7	74.9	0.2	Yes	No
dBA: A-weighted decibels; CNEL: Community Noise Equivalency Level					

As shown in Tables 4.5-9 through 4.5-11, the noise increase from Project-generated traffic would be less than 3 dBA for all the scenarios. Therefore, the noise increase would not be substantial and the impact would be less than significant.

Impact Conclusion: *Scenario 3 would not cause a substantial permanent increase in ambient noise levels in the Project vicinity when compared to levels existing without the Project; therefore, Scenario 3 have a less than significant impact for Threshold 4.5-3.*

No Project Alternative

In the No Project Alternative, no affordable housing dwelling units are assumed on the Ranch Plan site. No impact would occur in this alternative.

Impact Conclusion: *The No Project Alternative would not cause a substantial permanent increase in ambient noise levels in the Project vicinity when compared to levels existing without the Project; therefore, the No Project Alternative have a less than significant impact for Threshold 4.5-3.*

Noise Generated by Operational On-Site Sources

All Project Development Scenarios

As discussed in Threshold 4.5-1, on-site noise sources would include HVAC systems, mechanical equipment and typical residential sources. With implementation of SC NOI-5, noise from these noise sources would not exceed the limits of the Orange County Noise Ordinance. Therefore, the ambient noise increase resulting from implementation of the Project would not be substantial and would be less than significant with implementation of the SC.

Impact Conclusion: *With the implementation of SC NOI-5, Project-generated noise increases at sensitive receptors from on-site sources would not result in a substantial permanent increase in ambient noise levels and impacts would be less than significant. Ambient noise increases in the vicinity of the Project site generated by on-site sources would be less than significant for Threshold 4.5-3.*

No Project Alternative

In the No Project Alternative, the designated Affordable Housing sites would be developed with approved Ranch Plan uses, rather than Affordable Housing units. Therefore, no Project-related impact would occur in this alternative.

Impact Conclusion: *The No Project Alternative would have no impact for Threshold 4.5-3.*

Threshold 4.5-4

Would the Project cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

All Project Development Scenarios

Construction

There would be a temporary increase in ambient noise levels in the Project vicinity due to Project construction. As described under Threshold 4.5-1 and in SC NOI-1, construction activities for the proposed Project would be limited to the hours specified in the Orange County Noise Ordinance.

Construction noise is related primarily to the use of heavy equipment. Typical maximum noise levels generated by representative pieces of construction equipment are listed in Table 4.5-12. Each phase of construction has a different equipment mix depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some have high-impact noise levels. Construction activities that typically cause the highest noise levels are pile driving, blasting, and rock crushing; none of these activities is anticipated for the proposed Project. The loudest phase of the proposed Project is anticipated to be grading; however, minimal grading activities would be associated with the development of each of the Affordable Housing sites. Following grading, construction noise levels would be lower because fewer pieces of construction equipment would be used and because the equipment used is generally smaller and quieter than demolition and grading equipment.

TABLE 4.5-12
TYPICAL MAXIMUM CONSTRUCTION NOISE LEVELS

Equipment	Noise Level (dBA) at 50 ft	Acoustic Usage Factor
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80–82	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 KVA or less)	70	50%
Generator (more than 25 KVA)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Pile Driver, Impact (diesel or pneumatic)	95–101	20%
Pile Driver, Vibratory	95	20%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%

dBA: A-weighted decibels; ft: foot/feet; KVA: kilovolt amps
Source: Thalheimer 2000; FTA 2006

As previously discussed, the construction noise associated with the Project would be from finish grading and physical building construction. Noise levels at any receptor point vary as equipment moves around a site. Noise levels of individual pieces of equipment also vary as equipment use

ranges from full power to idle. The typical percentage of time at full power is indicated by the acoustic usage factors in Table 4.5-12.

As discussed in Threshold 4.5-1, construction activities are exempt from the quantitative limits of the Orange County Noise Ordinance provided construction does not take place between the hours of 8:00 PM and 7:00 AM on weekdays, including Saturday, or at any time on Sunday or a federal holiday.

The sites where the Affordable Housing would be built are currently undeveloped. Concurrent development of the market rate Ranch Plan development is anticipated. However, to assume a worst-case scenario for analysis purposes, it is assumed that residential land uses would be developed adjacent to each Affordable Housing site. For analysis purposes, it is assumed that the nearest residences would be 150 feet from the center of the grading and building activities on each Affordable Housing site. Noise impacts are assessed for two cases: (1) intermittent maximum noise events, L_{max}, when a single piece of equipment is working nearest a sensitive receptor and (2) average noise levels, L_{eq}, generated by a number of pieces of equipment working at various areas on the site. Maximum noise at residences would occur when heavy equipment (e.g., a dozer or tractor) is operating at the construction sites and intermittent noise levels may reach approximately 75 dBA L_{max} at the nearest residences. Assuming that three pieces of construction equipment (i.e., 1 backhoe, 1 small dozer, and 1 water truck) are operating at the center of the construction sites, the average grading noise levels at the nearest residences facing the construction sites would be approximately 75 dBA L_{eq}. As discussed in Section 4.5.1, construction noise is exempt from the quantitative noise levels prescribed in the Noise Ordinance. Construction activities would be heard above ambient noise levels. The intermittent maximum noise events may create temporary annoyance to the closest residents. SC NOI-2, included in Section 4.5.7, would require all construction equipment operated within 1,000 feet of a dwelling to be equipped with properly operating and maintained mufflers. SC NOI-2 also requires that stockpiling and/or vehicle staging areas be located as far as practicable from dwelling units. Further SC NOI-1 restricts the hours of construction operation in compliance with the Noise Ordinance. Therefore, the noise impacts would be less than significant with implementation of the Standard Conditions.

Impact Conclusion: *There would be a temporary increase in ambient noise levels in the Project vicinity due to Project construction. Temporary increases in ambient noise levels due to Project construction would not be substantial and would be less than significant for Threshold 4.5-4 with the implementation of SC NOI-1, and SC NOI-2.*

No Project Alternative

In the No Project Alternative, the designated Affordable Housing sites would be developed with approved Ranch Plan uses, rather than Affordable Housing units. No Project-related impact would occur under this alternative.

Impact Conclusion: *The No Project Alternative would not cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity. There would be no Project-related impacts for the No Project Alternative for Threshold 4.5-4.*

4.5.6 CUMULATIVE IMPACTS

The cumulative noise analysis considers both the short-term construction noise, as well as the long-term operational impacts. Noise impacts during construction of the proposed Project would be localized and would occur intermittently for varying periods of time throughout the construction period. Short-term cumulative impacts related to ambient noise levels could occur if construction associated with the proposed Project were to occur simultaneously with other construction projects in the vicinity of the Project sites. The most substantial project in the long-term projections for this Regional Statistical Area (RSA) is the Ranch Plan.[2] Though assumed as part of the baseline condition for the Project analysis (see Section 3.4.4, Alternative California Environmental Quality Act Baseline), it is acknowledged that the construction of the Ranch Plan approved uses would contribute to cumulative construction noise. However, construction noise is exempt from the quantitative noise levels prescribed in the Noise Ordinance. Both the proposed Project and the Ranch Plan would be required to comply with the conditions outlined in the County of Orange Noise Ordinance (see SCs NOI-1 and NOI-2), which provides the necessary restrictions to ensure construction Project and cumulative noise impacts are less than significant.

For the operational (long-term) noise impacts, the cumulative traffic noise impacts are measured based on projected noise level increases over baseline conditions. This analysis considers the forecasted traffic volumes based on long-term 2035 conditions with the SR-241 extension and without the SR-241 extension. In additional to assuming buildout of the Ranch Plan, this analysis assumes long-range land use growth projections from the General Plans of the Cities of Mission Viejo, San Juan Capistrano and San Clemente as well as Orange County Projections 2010 Modified Year 2035 growth projections for the surrounding areas in south Orange County.[3] This analysis also includes local and regional circulation system improvements that are planned by 2035 (Stantec 2015)

As discussed in Section 4.5.4, cumulative impacts are measured by an assessment of the total noise increase due to the project together with other growth in the area as compared to existing conditions. Because increases over the baseline conditions will take place over a long period of time, a 3 dB cumulative increase over baseline conditions would be considered substantial. Therefore, for purposes of this noise analysis, a cumulative noise increase is considered a significant cumulative impact if the cumulative increase over baseline conditions would be 3 dB or more, and if the resulting future noise level would exceed the interior noise level standard of 45 CNEL or the exterior noise level standard of 65 CNEL.

Cumulative impacts were calculated for 69 roadway segments, and those roadway segments with cumulative noise increases greater than 3 dBA are shown in Table 4.5-13 and Table 4.5-14. As shown in Table 4.5-13 (Year 2035 With the State Route 241 Extension), the cumulative traffic noise increases on Camino del Rio between Camino de los Mares and La Pata Avenue and on the SR-241 North of Oso Parkway would be greater than 3 dBA. However, the Project's contribution to each increase would be less than 0.1 dBA and would not be cumulatively considerable. As

[2] For the growth projections, known as the Orange County Projections (OCP) 2014, Orange County is divided into 10 RSAs. This is discussed further in Section 4.6, Population and Housing.

[3] Though the OCP-2014 dataset has been adopted, the traffic model still relies on OCP-2010 Modified. A comparison of the datasets for Regional Statistical Area C-43, which includes the Project indicate the two datasets are very similar. OCP-2014 does show an increase in 1,136 units in 2035 when compared to the OCP-2010 Modified dataset. This accommodates the Project.

shown in Table 4.5-14 (Year 2035 Without the State Route 241 Extension), the cumulative traffic noise increases on Camino del Rio between Camino de los Mares and La Pata Avenue would be greater than 3 dBA. However, the Project's contribution to each increase would be less than 0.1 dBA and would not be cumulatively considerable. Therefore, the Project's cumulative impact would be less than significant.

TABLE 4.5-13
CUMULATIVE TRAFFIC NOISE LEVELS
(YEAR 2035 WITH THE STATE ROUTE 241 EXTENSION)

Roadway	Segment	CNEL at 50 feet (dBA)		Cumulative Increase dBA	Project Contribution dBA	Potential Significant Impact?
		Alternative Baseline	Post-2035 With Project (Scenario 3)			
Camino del Rio	Camino de los Mares to La Pata Ave	62.5	67.7	5.2	<0.1	No
SR-241	North of Oso Pkwy	76.1	79.8	3.7	<0.1	No
CNEL: Community Noise Equivalency Level; dBA: A-weighted decibels; SR: State Route						

TABLE 4.5-14
CUMULATIVE TRAFFIC NOISE LEVELS
(YEAR 2035 WITHOUT THE STATE ROUTE 241 EXTENSION)

Roadway	Segment	CNEL at 50 feet (dBA)		Cumulative Increase dBA	Project Contribution dBA	Potential Significant Impact?
		Alternative Baseline	Post-2035 With Project (Scenario 3)			
Camino Del Rio	Camino Del Los Mares to La Pata Ave	62.5	68.2	5.7	<0.1	No
CNEL: Community Noise Equivalency Level; dBA: A-weighted decibels						

4.5.7 MITIGATION PROGRAM

Standard Conditions and Requirements

The following are the Standard Conditions (SCs) associated with noise that would apply to the Project, which were created from the Orange County Standard Conditions of Approval. (The number of the Orange County Standard Condition of Approval is listed in parentheses at the end of each condition.)

Construction Noise

SC NOI-1 During construction, the Project Applicant shall ensure that all noise-generating activities be limited to the hours of 7 AM to 8 PM on weekdays and Saturdays. No noise-generating activities shall occur on Sundays and federal holidays in accordance with the County of Orange Noise Ordinance.

SC NOI-2 A. Prior to the issuance of any grading permits, the Project Applicant shall produce evidence acceptable to the Manager, Building Permits Services, that:

(1) All construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling shall be equipped with properly operating and maintained mufflers.

(2) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).

(3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition (County of Orange Standard Condition N10).

Residential Development

Where achieving the prescribed setback, as identified in Table 4.5-5 or subsequent site specific acoustical studies is not feasible, to avoid potentially significant noise/land use compatibility impacts, SC NOI-3 and SC NOI-4 would be applicable.

SC NOI-3 The Project Applicant shall sound-attenuate all residential lots and dwellings against present and projected noise (which shall be the sum of all noise impacting the project) so that the composite interior standard of 45 dBA CNEL for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas is not exceeded. The applicant shall provide a report prepared by a County-certified acoustical consultant, which demonstrates that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, as follows:

A. Prior to the recordation of a subdivision map or prior to the issuance of grading permits, as determined by the Manager, Building Permits Services, the applicant shall submit an acoustical analysis report to the Manager, Building Permits Services, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy Condition B below.

B. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, Building Permits Services, for approval along with satisfactory evidence that indicates that the sound-attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

C. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, Building Permits Services (County of Orange Standard Condition N01).

SC NOI-4 Prior to the issuance of any certificates of use and occupancy, the applicant shall perform field testing in accordance with Title 24 Regulations to verify compliance with FSTC and FIIC standards if determined necessary by the Manager, Building Inspection Services. In the event such a test was previously performed, the applicant shall provide satisfactory evidence and a copy of the report to the Manager, Building Inspection Services, as a supplement to the previously required acoustical analysis report (County of Orange Standard Condition N09).

Noise Generating Equipment

SC NOI-5 Prior to the issuance of any building or grading permits, the applicant shall obtain the approval of the Manager, Building and Safety, of an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by the Project during its operation shall be controlled in compliance with Orange County Codified Ordinance, Division 6 (Noise Control). The report shall be prepared under the supervision of a County-certified Acoustical Consultant and shall describe the noise generation potential of the project during its operation and the noise mitigation measures, if needed, which shall be included in the plans and specifications of the project to assure compliance with Orange County Codified Ordinance, Division 6 (Noise Control) (County of Orange Standard Condition N08).

Mitigation Measures

With the implementation of County Standard Conditions of Approval, identified above, all impacts would be less than significant and no mitigation measures are required.

4.5.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project-specific and cumulative noise impacts would be less than significant with implementation of the Standard Conditions. No significant unavoidable impacts would occur.

4.5.9 REFERENCES

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———. 2013 (December 18). Addendum Number One to Affordable Housing Implementation Agreement for Rancho Mission Viejo. Santa Ana, CA: the County.

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U.S. Department of Transportation, Federal Transit Administration (FTA). 2006 (May). *Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06* (prepared by Harris Miller Miller & Hanson, Inc.). Washington, D.C.: FTA. http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

4.6 POPULATION AND HOUSING

This section discusses Project-related impacts to population and housing in the vicinity of the Project site. The analysis in this section is based on information from the Orange County Projections 2014 (OCP-2014) prepared by the Center for Demographic Research (CDR) at California State University, Fullerton (CSUF). Consistency with the Regional Housing Needs Assessment (RHNA) for unincorporated Orange County has been evaluated as part of the policy analysis in Section 4.4, Land Use and Planning.

4.6.1 REGULATORY SETTING

Several regulations pertaining to population and housing are adopted at the State level and implemented at a regional and local level. Additionally, the planning for the long-term growth in the State and region is interconnected with policies related to air quality, greenhouse gas emissions (GHG), and transportation. The following regulatory setting provides some insight into this interconnectivity of issues to help facilitate the understanding of this issue. However, more detailed discussion regarding consistency with the Southern California Association of Governments' (SCAG's) 2016–2040 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) Growth Forecast policies is provided in in Section 4.4, Land Use and Planning.

State Requirements

California Housing and Community Development Department Projections

California housing law calls upon local jurisdictions to provide a fair-share of housing, including housing to serve extremely low-, very low-, low-, moderate- and above moderate-income households.[1] Specifically, Sections 65580 *et seq*. of the *California Government Code* addresses the need for counties and cities to recognize their responsibilities in contributing to the attainment of the state housing goal. This regulation identifies the local Housing Elements of the General Plan as the mechanism for identifying adequate housing sites.

The California Housing and Community Development Department (HCD) assigns fair share housing targets to each of the Council of Governments (COG) in the state based on the Department of Finance population projections and regional forecasts. SCAG, a Joint Powers Agency established under Sections 6502 *et seq*. of the *California Government Code*, is designated as a COG, a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO) for the six-county region of Orange, Los Angeles, Ventura, San Bernardino, Riverside, and Imperial Counties.

[1] For planning and funding purposes, the California Housing and Community Development Department (HCD) defines the income categories, adjusted for household size and based on the Area Median Income (AMI) of a metropolitan area. Extremely low income households earn up to 30 percent of the AMI; very low income households earn between 31 and 50 percent of the AMI; low income households earn between 51 and 80 percent of the AMI; moderate income households earn between 81 and 120 percent of the AMI; and above moderate income households earn over 120 percent of the AMI.

4.6.2 METHODOLOGY

Existing and projected population, housing, and employment data for unincorporated Orange County is based on the OCP-2014 dataset (CDR 2014). This dataset is consistent with Southern California Association of Governments' (SCAG's) 2016-2040 Regional Transportation Plan (RTP) Regional Growth Forecast projections, which are the currently adopted population, housing and employment projections for the six-county region, including Orange County.[2] The SCAG 2016 RTP Regional Growth Forecast is an appendix to SCAG's adopted 2016–2040 RTP/SCS. Therefore, the OCP-2014 offers the best available local demographic data for the County to evaluate the Project's potential impacts to population, housing, and employment. Expected population growth has been developed using the population generation factor of 1.99 persons per dwelling unit (du) for the family units (based on County Park Code Section 7-9-522 for development between 15.6 and 25.5 du/ac) and 1.4 persons per senior unit (based on the generation factor developed with CDR for the Ranch).

The analysis in this section compares the projected population and housing growth associated with each of the scenarios with the adopted OCP-2014 dataset. The evaluation analyzes consistency at the County-wide level; within unincorporated Orange County; and in the applicable Regional Statistical Area (RSA) and Community Analysis Areas (CAAs). Impacts are assumed to be less than significant if the projected growth as a result of the Project is consistent with the assumed growth for the area. Growth-inducing impacts are also discussed further in Section 5.3 of this Program EIR.

Though not specifically tied to the threshold used to evaluate potential impacts on population and housing, the OCP-2014 employment projections are provided for informational purposes.

4.6.3 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

Orange County Projections 2014

The CDR is governed and supported by the following sponsor agencies: County of Orange, Orange County Council of Governments, Orange County Sanitation District, Orange County Transportation Authority, the Transportation Corridor Agencies, Municipal Water District of Orange County, Orange County Water District, SCAG, and CSUF. The goal of the CDR is to provide accurate and timely information regarding population, housing, and employment characteristics in an efficient and cost-effective manner.

These projections are recognized by the agencies that sponsor the CDR as the uniform data set for use in local planning applications. In broad terms, the method used to create the OCP-2014 involves projecting total population, housing, and employment figures and then disaggregating those figures to smaller geographic areas based on analyses of local policy, land use capacity, demographic changes, and assumed market forces. In order to develop projections of future trends in housing stock, social structure, and employment dynamics, OCP-2014 incorporates various assumptions that include, but are not limited to the following: the net densities of newly

[2] SCAG, a Joint Powers Agency established under Sections 6502 et seq. of the *California Government Code,* is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO) for the six-county region of Orange, Los Angeles, Ventura, San Bernardino, Riverside, and Imperial Counties.

developed single-family and multiple-family developments, which will be higher than the density levels of the past; the countywide rate of residential redevelopment to more dense residential development, which will increase throughout the period of these projections as the existing housing stock ages, deteriorates, and is replaced; and the production of affordable housing, which will continue to be a challenge due to dwindling supplies of available land, continuing demand for housing, and costs associated with redevelopment to make affordable housing projects cost-effective.

CDR prepared OCP-2014 in conjunction with the Orange County jurisdictions to provide a consistent set of demographic projections to provide a common foundation for regional and local planning, policymaking, and infrastructure provision. The OCP numbers are updated approximately every four years with the OCP-2014 data set being the 12th in the series. These numbers are used by regional and local governments in the development of the RTP/SCS, the Congestion Management Plan, the Air Quality Management Plan, integrated waste management plans, and growth management plans.

The OC-2014 dataset was approved by the Orange County Council of Governments (OCCOG) on September 25, 2014, and has been transmitted for use to the agencies, including SCAG for use in applicable growth forecasts. The dataset provides population, housing, and employment projections through 2040 and includes the growth envisioned by Anaheim's Platinum Triangle, the Great Park Neighborhoods in Irvine, Tustin Legacy, and the Ranch Plan. The OCCOG formally adopted the total projections for the County of Orange and the 10 RSAs into which the County has been subdivided. Additionally, the projections have been aggregated by the 35 governmental jurisdictions, the County's 70 CAAs, and the 582 census tracts from Census 2010. These latter geographic distributions are for programmatic applications and informational purposes.

To provide both an overview of projected growth in the County and a more focused analysis on the study area, in addition to providing data for the total County and unincorporated County, data for the RSA and applicable CAAs are provided. The Project is located entirely in RSA C-43, which comprises the southern-central portion of Orange County and includes portions or all of the cities of Lake Forest, Mission Viejo, Rancho Santa Margarita, San Juan Capistrano, San Clemente, and the unincorporated communities of Ladera Ranch; Las Flores; the Ranch Plan; Coto de Caza; and Silverado, Modjeska, and Trabuco Canyons. RSA C-43 has been subdivided into seven CAAs (CAA 55, 56, 57, 58, 59, 60, and 70). However, the Ranch Plan is only located within CAAs 59 and 60. It should be noted that these CAAs encompasses far more than just the Ranch Plan.

Existing and Projected Population

Population growth in Orange County has maintained a strong but diminishing pace in recent decades. From 1980 to 1990, the population increased by 47,785 people annually, slowing to an average annual increase of 43,573 people during the 1990s. From 2000 to 2010, the average annual population increase dropped to 16,943 people per year; however, as a result of incorporations and annexations, the population of the unincorporated portions of the county declined by approximately 29 percent between 2000 and 2012.

As shown in Table 4.6-1, OCP-2014 projects a population increase for unincorporated Orange County of 57,676 between 2015 and 2040, with the greatest average annual percent

increase occurring between 2020 and 2035 (approximately 2.1 percent average annual increase). The unincorporated County is projected to increase its share of the total County population from 3.9 percent in 2015 to 5.2 percent in 2040. Population is projected to increase by 54,205 within RSA C-43 during the 25-year time period. CAAs 59 and 60 are projected to increase by 41,899, which would account for 77.2 percent of RSA C-43 population growth. It should be noted that by 2040, the Ranch Plan, which will include up to 14,000 dwelling units, is projected to be complete.

Existing and Projected Housing

According to the 2010 Census, Orange County had 1,048,907 households, with an average of 2.87 persons per occupied housing unit.[3] Of the County housing stock, 63.5 percent are single-family units. As of January 2014, the Department of Finance reports a vacancy rate of 5.40 percent in the County and 3.80 percent in unincorporated County areas (DOF 2015).

Between 2015 and 2040, OCP-2014 projects a 45.8 percent increase of 18,855 housing units (an average annual increase of 754 units) in the unincorporated portions of the County.[4] OCP-2014 projects that by 2040, there will be 59,977 housing units in the unincorporated County, including the up to 14,000 to be provide by the Ranch Plan. Accordingly, RSA C-43 is projected to supply 17,800 more housing units by 2040. CAAs 59 and 60 are projected to supply 13,514, or 75.9 percent, of the 17,800 additional units that are projected for RSA C-43.

[3] This persons per household is based on the entire County housing stock. The number of persons per household is higher in single-family and lower density multi-family dwelling units than in high density developments, as is being proposed as part of this Project.

[4] From 2000 to 2012, the housing stock of the unincorporated are decreased by approximately 36 percent due to annexations and incorporations.

TABLE 4.6-1
ORANGE COUNTY PROJECTIONS: 2015–2040

Area	2015	2020	2025	2030	2035	2040	Change 2015–2040	Percent Change
Population								
Orange County	3,153,190	3,264,955	3,347,128	3,400,720	3,434,443	3,464,493	311,303	9.8%
Unincorporated OC	125,841	137,713	165,505	174,630	181,305	183,517	57,676	45.8%
RSA C-43	299,443	320,464	339,602	347,619	352,800	353,648	54,205	18.1%
CAAs 59 and 60	98,428	110,158	128,124	135,151	139,267	140,327	41,899	42.5%
Dwelling Units								
Orange County	1,082,882	1,131,401	1,162,028	1,179,590	1,193,601	1,205,608	122,726	11.3%
Unincorporated OC	41,122	45,018	53,976	56,935	59,199	59,977	18,855	45.8%
RSA C-43	104,731	111,840	117,902	120,376	122,168	122,531	17,800	16.9%
CAAs 59 and 60	35,319	39,157	44,837	47,091	48,470	48,833	13,514	38.2%
Employment								
Orange County	1,623,643	1,730,085	1,791,784	1,836,197	1,870,025	1,898,685	275,042	16.9%
Unincorporated OC	23,349	29,983	35,225	37,674	39,736	41,163	17,814	76.2%
RSA C-43	106,687	117,790	126,243	129,374	132,140	134,038	27,351	25.6%
CAAs 59 and 60	29,117	35,802	40,998	43,419	45,459	46,872	17,755	60.9%

OC: Orange County; RSA: Regional Statistical Area; CAA: Community Analysis Area

Source: CDR 2014

Existing and Projected Employment

As shown in Table 4.6-1, OCP-2014 projects that, from 2015 through 2040, the County will continue to grow by 275,042 jobs, an average of 11,001 jobs per year. This constitutes a 16.9 percent increase over the 25-year period.

The unincorporated portions of the County are projected to have 23,349 jobs as of 2015, according to OCP-2014. As shown in Table 4.6-1, between 2015 and 2040, OCP-2014 projects a 76.2 percent employment increase of 17,814 jobs, an annual average increase of 713 jobs. As of 2015, the unincorporated County accounted for approximately 1.4 percent of Orange County jobs; by 2040, that figure is projected to increase to 2.2 percent. By 2040, the number of jobs within RSA C-43 is projected to increase by 27,351 with a total of 134,038 jobs. CAAs 59 and 60 will play a substantial role in the growth of RSA C-43 as they are projected to experience a 60.9 percent increase in the number of jobs by during the timeframe.

Jobs/Housing Ratio

The jobs/housing ratio is a general measure of the "balance" between the number of jobs and number of housing units available in a geographic area, without regard to economic constraints or individual preferences. The jobs/housing ratio is one indicator of a project's effect on growth and quality of life in a project area. No ideal jobs/housing ratio is adopted in State, regional, or City policies; jobs/housing goals and ratios are advisory only. SCAG applies the jobs/housing ratio concept at the regional and subregional levels as a tool for analyzing the fit between jobs, housing, and infrastructure. The County of Orange as a whole is considered a regional employment hub with a projected 2015 jobs/housing ratio of 1.50; however, the unincorporated County has a substantially lower 2015 jobs/housing ratio of 0.57. The discrepancy between the entire County and the unincorporated areas is explained by the composition of the unincorporated areas; the unincorporated areas are heavily focused on residential development at the expense of commercial and industrial development, while incorporated cities in the County generally have a more diverse mixture. Over the next 25 years, OCP-2014 projects that the amount of jobs will increase at a faster rate than the amount of housing units throughout the County. By 2040, a jobs/housing ratio of 1.58 is projected for the entire County while the unincorporated County jobs/housing ratio is projected to increase to 0.69 (CDR 2014).

FEIR 589 estimated that the Ranch Plan would generate approximately 16,509 jobs, resulting in a jobs-to-housing ratio of 1.18. Though this would be below the overall County average. However, since 6,000 of the units (approximately 43 percent) of the development in the Ranch Plan would be age-restricted units (i.e., 1 resident must be aged 55 or older), an adjusted jobs/housing ratio was calculated. The adjusted jobs/housing ratio for the Ranch Plan was calculated to be approximately 1.66 jobs per "working" household (i.e., jobs for those households deemed to be in the workforce).[5]

[5] FEIR 589 made this assessment using national labor force participation rates (U.S. Census Bureau), which indicated that approximately 32 percent of the senior residents (aged 55 and older) continue to work. Since the Ranch Plan is approved for 14,000 dwelling units, of which 6,000 are age–qualified, it was determined that approximately 1,920 of the age-qualified households would be in the work force (i.e., 32 percent of the 6,000 age qualified units). Therefore, of the total 14,000 units a total of 9,920 units would be working households (i.e., the 8,000 non-age-qualified units and the 1,920 age-qualified units expected to still be in the workforce). Then the 16,509 jobs estimated to be generated by the Ranch Plan was divided by the 9,920 workforce households to identify a 1.66 jobs per household.

4.6.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist, the Project would result in a significant impact to population and housing if it would:

Threshold 4.6-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

4.6.5 IMPACT ANALYSIS

Threshold 4.6-1

Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Scenario 1: Full Private-Sector Scenario

This scenario assumes that the County would approve Addendum Two to AHIA, and then implement the Project entirely using the Private-Sector Alternative, netting approximately 555affordable units in Planning Areas 3, 4, 5 and 8. The generation factors discussed in the Methodology Section (i.e., 1.99 persons per du for the family units and 1.4 persons per senior unit) and the assumption that 75 percent of the Project would be multi-family housing and 25 percent of the Project would be senior housing were utilized. As such, Scenario 1 is projected to generate 1,023 people when complete. This would be over and above the 32,823 new residents assumed to be living in the Ranch Plan (County of Orange 2004). Utilizing the OCP-2014 data set, this represents approximately:

- 0.3 percent of the population growth and 0.5 percent of the housing growth for the total County area;
- 1.7 percent of the population growth and 2.9 percent of the housing growth for the unincorporated Orange County;
- 1.9 percent of the population growth and 3.1 percent of the housing growth for RSA C-43; and
- 2.4 percent of the population growth and 4.1 percent of the housing growth for the CAAs 59 and 60 between 2015 and 2040.

Though the increased number of dwelling units and associated population would be above and beyond the 14,000 dwelling units assumed as part of the Ranch Plan, the OCP-2014 dataset includes the affordable housing units in the Ranch Plan.[6] As discussed in Section 4.4, Land Use and Planning, the densities are consistent with the General Plan for the area. This development would also be consistent with the trends identified by CDR, which forecasts that an increase in the share of the County's population would reside in the four south county RSAs, which includes RSA C-43. Additionally, in terms of population and housing growth, RSA C-43 is projected to experience the second largest increase (both numerical increase and percentage increase) of all the RSAs. Therefore, the growth associated with Scenario 1 is slightly less than what was assumed in the OCP-2014 dataset, but is generally consistent with the overall growth projections (population and housing) for the area and would not represent a substantial increase over the planned growth for the area.

Though employment is not specifically identified in this threshold, a jobs/housing balance evaluation has been developed to assess whether the additional housing units would result in an imbalance between housing and employment within the Ranch Plan. The Project would not result in the creation of any additional long-term employment opportunities (there would be short-term construction related jobs). Using the same method as was used in FEIR 589 (which assumes 32 percent of the senior residents would continue to work and 25 percent of the Affordable Housing units would be age-qualified units), the estimated working population resulting from the implementation of Scenario 1 was added to the projected working population for the Ranch Plan. This combined working population was then divided by the estimated 16,509 jobs projected to be created by the Ranch Plan. This would result in an adjusted jobs/housing balance for the Ranch Plan with Scenario 1 of 1.59.[7] This would be generally consistent with the 1.58 jobs/housing ratio assumed for the County as a whole and would exceed the current and projected jobs/housing balance for the south County subregion. As indicated above, the south Orange County area is considered housing rich. Therefore, having a higher jobs/housing ratio would be beneficial to the subregion.

Scenario 1 would not provide substantial new infrastructure that would serve growth beyond or within the Project study area. Scenario 1 would utilize the road network and support infrastructure (electrical, gas, storm drains, and emergency services) being developed for the Ranch Plan. Additionally, other than short-term construction jobs, Scenario 1 would not generate any long-term new employment in the Project area.

Impact Conclusion: *Though Scenario 1 would provide additional housing units within the Ranch Plan, it would not induce substantial population growth in an area, either directly or indirectly and would be consistent with the development levels*

[6] To ensure the OCP-2014 considered the potential growth associated with the affordable housing units pursuant to the Affordable Housing Implementation Agreement (AHIA), in response to the County's request, the Center for Demographic Research included additional growth in CAAs 59 and 60. An additional 1,128 units have been added to these two CAAs. The increased units are phased in between 2015 and 2040. Adjustments in the population projections have also been made. The 2040 population projections in OCP-2014 projects an additional 1,032 people compared to the 2035 population projections in OCP-2010M. OCP-2014 attributes the declining growth rate in population to the aging population of the county and an increasing number of deaths per year as the baby boomer generation ages.

[7] FEIR 589 assumed the employment uses in the Ranch Plan would generate 16,509 jobs. Using the Affordable Housing developments would have 25 percent senior housing, and the reduced employment demand was factored in to develop an adjusted jobs/housing balance for all 3 alternatives using the same methodology previously described.

assumed in the adopted OCP-2014. Impacts would be less than significant pursuant to Threshold 4.6-1.

Scenario 2: Combined Public- and Private-Sector Scenario

Scenario 2 assumes that the County would expand Private-Sector Alternative, and would implement the Project using a combination of both private-sector and public-sector resources, netting approximately 740 units. The affordable housing would be distributed throughout each of the remaining Planning Areas slated for development.

Scenario 2 is projected to increase population by 1,363 persons when the Project is complete. As with Scenario 1, this would be over and above the 32,823 new residents assumed to be living in the Ranch Plan. (County of Orange 2004) Utilizing the OCP-2014 data set, this represents approximately:

- 0.4 percent of the population growth and 0.6 percent of the housing growth for the total County area;
- 2.4 percent of the population growth and 3.9 percent of the housing growth for the unincorporated Orange County;
- 2.5 percent of the population growth and 4.2 percent of the housing growth for RSA C-43; and
- 3.3 percent of the population growth and 5.5 percent of the housing growth for the CAAs 59 and 60 between 2015 and 2040.

The increased number of dwelling units and associated population generated by Scenario 2 would be above and beyond the 14,000 dwelling units assumed as part of the Ranch Plan. However, as with Scenario 1, the growth associated with Scenario 2 is less than what was assumed in the OCP-2014 dataset, but is generally consistent with the overall growth projections (population and housing) for the area and would not represent a substantial increase over the planned growth for the area.

Similar to Scenario 1, Scenario 2 would not generate any long-term employment opportunities. Using the same method as was used in FEIR 589 (which assumes 32 percent of the senior residents would continue to work), the estimated working population resulting from the implementation of Scenario 2 was added to the projected working population for the Ranch Plan. This combined working population was then divided by the estimated 16,509 jobs projected to be created by the Ranch Plan. This would result in an adjusted jobs/housing ratio for the Ranch Plan with Scenario 2 of 1.57. As with Scenario 1, this would be generally consistent with jobs/housing ratio assumed for the County as a whole and would exceed the current and projected jobs/housing balance for the south County subregion.

Scenario 2 would not provide substantial new infrastructure that would serve growth beyond or within the Project study area. This scenario would utilize the road network and support infrastructure (electrical, gas, storm drains, and emergency services) being developed for the Ranch Plan.

Impact Conclusion: *Though Scenario 2 would provide additional housing units within the Ranch Plan, it would not induce substantial population growth in an area, either directly or indirectly, and would be consistent with the development levels assumed in the adopted OCP-2014. Impacts would be less than significant pursuant to Threshold 4.6-1.*

Scenario 3: Full Public-Sector Scenario

This scenario assumes the County will implement the Project entirely with public-sector resources. This scenario would net approximately 1,110 affordable housing units. As with the other scenarios, affordable housing would be distributed throughout each of the remaining Planning Areas slated for development. Scenario 3 is projected to increase population by 2,045 when the Project is complete. Utilizing the OCP-2014 data set, this represents approximately:

- 0.7 percent of the population growth and 0.9 percent of the housing growth for the total County area;
- 3.6 percent of the population growth and 5.9 percent of the housing growth for the unincorporated Orange County;
- 3.7 percent of the population growth and 6.2 percent of the housing growth for RSA C-43; and
- 4.8 percent of the population growth and 8.2 percent of the housing growth for the CAAs 59 and 60 between 2015 and 2040.

The increased number of dwelling units, and associated population generated by Scenario 3 would be above and beyond the 14,000 dwelling units assumed as part of the Ranch Plan. However, as discussed above, the growth is generally consistent with OCP-2014 growth projections, which has incorporated development consistent with the AHIA.

Similar to Scenarios 1 and 2, Scenario 3 would not generate any long-term employment opportunities. As with Scenarios 1 and 2, an estimated working population resulting from the implementation of Scenario 3 was added to the projected working population for the Ranch Plan. This combined working population was then divided by the estimated 16,509 jobs projected to be created by the Ranch Plan. This would result in an adjusted jobs/housing ratio for the Ranch Plan with Scenario 3 of 1.52. This would slightly less than the 1.58 jobs/housing ratio projected for the County as a whole in 2040. However, it does exceed the projected jobs/housing balance for the south county subregion.

Scenario 3 would not provide substantial new infrastructure that would serve growth beyond or within the Project study area. This scenario would utilize the road network and support infrastructure (electrical, gas, storm drains, and emergency services) being developed for the Ranch Plan.

Impact Conclusion: *Though Scenario 3 would provide additional housing units in the Ranch Plan, it would not induce substantial population growth in an area, either directly or indirectly, and would be consistent with the development levels assumed in the adopted OCP-2014. Impacts would be less than significant pursuant to Threshold 4.6-1.*

No Project Alternative

The No Project Alternative assumes that no additional affordable housing would be provided in the Ranch Plan. The property offered for Affordable Housing pursuant to the AHIA would be returned to RMV; however, no additional development beyond the approvals provided in the Ranch Plan would be allowed. Therefore, the No Project Alternative would not support any additional population and housing beyond the current approvals for the Ranch Plan.

Impact Conclusion: *The No Project Alternative would not induce any population growth in an area, either directly or indirectly. There would be no impacts to population or housing pursuant to Threshold 4.6-1.*

4.6.6 CUMULATIVE IMPACTS

The proposed Project would not result in the provision of infrastructure or other improvements that would induce substantial population growth in an area, either directly or indirectly. Consistent with the requirements of Section 15130(b) of the State CEQA Guidelines, this EIR has based the cumulative analysis on the projections contained in an adopted local, regional or statewide plan, or related planning document. The regional growth forecasts used for the cumulative analysis, which are also reflective of the Orange County General Plan, is the dataset provided by OCP-2014 for 2040. None of the Project development scenarios would result in development levels that would exceed the OCP-2014 assumptions. The OCP-2014 dataset includes the growth anticipated by the Ranch Plan, which is the largest development in the RSA. The Proposed Project would not contribute to a cumulative growth inducing impact.

4.6.7 MITIGATION PROGRAM

No significant impacts are identified for population and housing for any of the Project development scenarios or the No Project Alternative; therefore, no mitigation measures are required.

4.6.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant for all the Project scenarios.

4.6.9 REFERENCES

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California Department of Finance (DOF). 2015 (January). Population and Housing Estimates, Series E-5. Sacramento, CA: DOF.

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———. 2013 (December 10). *County of Orange Housing Element.* Santa Ana, CA: the County. http://ocplanning.net/civicax/filebank/blobdload.aspx?blobid=33606.

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4.7 PUBLIC SERVICES

4.7.1 FIRE PROTECTION

This section discusses Project-related impacts to fire protection services in the vicinity of the Project site.

Regulatory Setting

County of Orange

County of Orange Fire Code

Division 3 of Title 3 of the Codified Ordinances of the County of Orange states that the County has adopted the 2010 California Fire Code, based on the 2009 Edition of the International Fire Code (IFC). The IFC includes regulations for the protection of life and property from fire and explosion, as enforced by OCFA.

Local

Secured Fire Protection Agreement

Development of the Ranch Plan Planned Community (the Ranch Plan) is subject to certain requirements imposed by the County, including provisions relating to fire protection services. As part of these requirements, Ranch Mission Viejo (RMV) entered into two separate Secured Fire Protection Agreements (SFPA) with the Orange County Fire Authority (OCFA). The first SFPA addressed development in Planning Area 1. The second SFPA covers Planning Areas 2 through 10 of the Ranch Plan. The SFPA includes, but is not limited to, the requirement for provision of facilities, apparatus, fire and rescue supplies, and equipment for the Ranch Plan. This second SFPA went in effect March 22, 2007 (OCFA 2007). The agreement outlines the timing for the temporary and permanent fire station facilities necessary to meet the "health, safety and welfare needs of the Project Area". The details of the SFPA are further discussed below under Existing and Alternative Baseline Conditions.

Ranch Plan Planned Community-Wide Fire Protection Program

On July 31, 2007, the Orange County Board of Supervisors approved the *Ranch Plan Planned Community-Wide Fire Protection Program* (RPFPP), which was prepared pursuant to Chapter 47 of the California Fire Code. The RPFPP provides a comprehensive approach to the processing of all emergency access and fire safety issues associated with the Ranch Plan. The RPFPP has been designed as a document that replaces existing County of Orange Standard Conditions and all general OCFA Guidelines relative to the Ranch Plan area with the following components:

1. Conditions of Approval
2. OCFA/County Responsibilities
3. Fire Master Plan Guidelines
4. Fuel Modification Guidelines

5. Approval and Appeal Procedures and Responsibilities
6. Alternative Development Standards

The County and OCFA have determined that the RPFPP is consistent with the County's General Plan; its implementation is in the best interests of the health, safety, and general welfare of the County, its residents, and the public; and the RPFPP is consistent with the police powers held by the County and OCFA (RMV 2007).

Methodology

The fire services analysis is based on information collected from the OCFA's Strategic Services Division and the Master Area Plan and Subarea Plans for the Ranch Plan Planning Areas 3 and 4.

Existing and Alternative Baseline Conditions

The OCFA is a regional fire service agency that serves 23 of the 34 cities in Orange County and all unincorporated areas. The OCFA protects over 1,680,000 residents from its 72 fire stations located throughout the County. The OCFA also has a network of Reserve Firefighters who operate at ten stations throughout the County (OCFA 2016b).

The OCFA maintains mutual aid agreements with the remaining 11 cities in the County, the State of California, and the U.S. Forest Service. The OCFA also maintains mutual and/or automatic aid agreements with Los Angeles, Riverside, San Bernardino, and San Diego Counties; Camp Pendleton Fire Department; and the U.S. Forest Service. Resources are deployed based upon a regional service delivery system, assigning personnel and equipment to emergency incidents without regard to jurisdictional boundaries.

The following goals for the provision of fire protection and emergency medical services has been established by the OCFA (OCFA 2016b):

- The first engine should reach the emergency scene within 7 minutes 20 seconds from receipt of a call 80 percent of the time and
- The first paramedic (advanced life support response unit) should reach the emergency scene within 10 minutes from receipt of a call 80 percent of the time.

Currently, OCFA Station 56, located at 56 Sendero Way in Planning Area 1, is the only fire station operating within Ranch Plan boundaries. The personnel at Station 56 is comprised of three fire captains, three fire apparatus engineers, and six firefighters. According to the SFPA, Planning Areas 3, 5, and 8 will each house a station in the future; each station will be built concurrently with its respective Planning Area. Subareas 3.3, 3.5, and 3.6 are identified as potential locations for the Planning Area 3 station in *Addendum 3.1 to Final EIR Nos. 584 and 589* (County of Orange 2015).[1] Table 4.7-1, Orange County Fire Authority Fire Stations in Proximity to the Ranch Plan, identifies the fire stations that are located closest to the proposed Affordable Housing Project sites.

TABLE 4.7.1
ORANGE COUNTY FIRE AUTHORITY FIRE STATIONS IN PROXIMITY TO THE RANCH PLAN

Fire Station	Address	Equipment	Number of Personnel
56	56 Sendero Way Rancho Mission Viejo	Medic Engine 56	12
40*	25082 Vista del Verde Coto de Caza	PAU Engine 40	9
58	58 Station Way Ladera Ranch	PM Engine 58	18
7	31865 Del Obispo St San Juan Capistrano	Engine 7, Engine 307, Medic 7, Patrol 7, Water Tender 7	15
59	48 Avenida La Pata San Clemente	Medic Truck 59	12

PAU: Paramedic Assessment Unit; PM: Paramedic

* Emergency vehicles do not have direct access to the Ranch Plan from OCFA Station 40.

Source: OCFA 2016a, 2016c

Fire Hazard Severity Zone (FHSZ) maps are created by the California Department of Forestry and Fire Protection (CAL FIRE). The maps identify areas where a wildfire is more likely to occur. On February 28, 2012, the Board of Supervisors of Orange County officially adopted the Very High FHSZ within the Local Responsibility Area of the unincorporated County (OCFA 2012).

As discussed above, RMV has entered into two SFPAs for the Ranch Plan. The first SFPA was focused only on Planning Area 1; therefore, it is not applicable to this Project. The SFPA for Planning Areas 2 through 10, which applies to the Project study area, identifies RMV's responsibilities for fire protection services in the Project study area and would serve as the alternative baseline for the Project (see Section 3.4.4 for a discussion of the Alternative CEQA Baseline). The fire service capacity specified in the SFPA is no more than 12,830 residential

[1] Final EIR 584 is the CEQA component of the joint CEQA/NEPA document prepared for the Southern Subregion NCCP/MSAA/HCP. This program and EIR are discussed in Section 2.7.1 of this EIR. FEIR 589 is the CEQA document prepared for the Ranch Plan. The Addendum for the Master Area Plan and Subarea Plans for Planning Areas 3 and 4 utilized both FEIR 584 and FEIR 589 because both documents are relevant to the evaluation of the impacts associated with the Ranch Plan. The analysis of consistency with the findings in FEIR 584 was used in the Addendum in the context of biological resources and the basis for determining consistency of the Planning Areas 3 and 4 Project with the SSHCP (e.g., if it would result in a "loss of habitat reserve acres" or a "loss of habitat value").

dwelling units and 4,600,000 square feet of commercial development.[2] The agreement requires RMV to provide (1) provide land; (2) construct improvements; (3) provide furnishings, equipment, and apparatus to establish temporary and permanent fire station facilities to ensure adequate fire protection and life safety services to the Ranch Plan Property;[3] (4) reimburse OCFA for OCFA costs for each fire station; and contribute toward overall regional fire services and facilities. RMV is fully responsible for all costs for the construction and equipping of three fire stations, identified in the SFPA as MVC1, MVC2, and MVC3. These facilities are depicted in the agreement as being located in Planning Areas 3, 5, and 8. The station in Planning Area 8 will be a "small station design" and the stations in Planning Areas 3 and 5 shall be of the "large station design", per the Design Guide. The SFPA provides that if development levels are less than what is assumed under the fire service capacity, adjustments will be made to the RMV's mitigation obligations. Additionally, if development is occupied that is more than three miles from an existing fire station than interim fire protection facilities and equipment may be required.

The RPFPP provides a comprehensive approach to processing emergency access and fire safety issues, which have been customized to meet OCFA's requirements. The RPFPP addresses design requirements and formalizes RMV's commitment to community-wide fire protection enhancement practices (e.g., automatic fire sprinklers, planting limitations, etc.) and early preparation and tracking of Fire Master Plans, which are intended to simplify and apportion responsibilities for plan check and inspection at subsequent levels of approval.

Thresholds of Significance

In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to fire protection if it would:

Threshold 4.7-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(i) Fire protection.

Impact Analysis

Threshold 4.7-1

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant

[2] Combined the SFPA for Planning Area 1 and the SFPA for Planning Areas 2 through 10 provide the fire service capacity to address the Ranch Plan approvals.

[3] The SFPA for Planning Areas 2 through 10 excludes Planning Area 1 from the area being covered by the agreement because a separate agreement is in place for Planning Area 1. The SFPA calls the remaining portion of the Ranch Plan covered by agreement for Planning Areas 2 through 10 as the "Net Project Area".

environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(i) Fire protection?

All Project Development Scenarios

As part of the Alternative Baseline (see Section 3.4.4 for a discussion of the Alternative Baseline), the implementation of the Ranch Plan is assumed as part of the baseline, including the infrastructure required to serve the Ranch Plan. Therefore, this analysis assumes Rancho Mission Viejo's (RMV) responsibilities for providing the necessary infrastructure for fire protection services for the Ranch Plan would occur in conjunction with the development of each planning area and would be phased in a manner meeting OCFA's approval. As detailed in the SFPA, RMV is responsible for establishing temporary and permanent fire station facilities and to ensure adequate fire protection and life safety services to the Ranch Plan including: providing land; constructing improvements; and providing furnishings, equipment, and apparatus. The SFPA requires coordination with OCFA on the precise location of the fire stations and dedication of land for a permanent fire station site within 180 days of the first builder "B" map recordation or the recordation of the first non-residential map.[4] Construction of the future fire stations required for the Ranch Plan would be phased in compliance with OCFA requirements as set forth in the SFPA in order to maintain minimum service requirements and response times. Therefore, the baseline condition for the Affordable Housing Project assumes these future stations as would be constructed in the timeframe supporting the development of the Subareas where the Affordable Housing sites would be located. Impacts associated with construction of the fire stations have been previously evaluated as part of FEIR 589, prepared for the Ranch Plan.

The Affordable Housing sites would be located within development areas within the Ranch Plan. Since the sites would be graded and utilities provided prior to being offered for development of Affordable Housing, the site requirements of the RPFPP, such as fire flow for hydrants would be implemented prior to the sites being available for development of Affordable Housing units. Similarly, as part of site preparation any required fuel modification would have been implemented as part of the mass grading of Planning Area; therefore, further fuel modification would not be required should any of the Affordable Housing sites are adjacent to wildlands (the sites identified for Planning Areas 3 and 4 are not immediately adjacent to open space; the proximity of the Affordable Housing sites in relationship to wildlands in Planning Areas 5 and 8 is unknown).

From a design perspective, the Affordable Housing units would be subject to the same design guidelines as set forth in the *Ranch Plan Planned Community Program Text,* which requires the preparation of a fire protection program. The RPFPP serves as this required program; and therefore, the Fire Master Plan Guidelines contained in the RPFPP would apply to the development of the Project. Compliance with these guidelines would reduce the potential for fire risk associated with implementation of the Project units. Fuel Modification requirements, which are also outlined in the RPFPP, would be implemented by RMV as part site preparation. Additionally, the County has established standard conditions that are applied to projects to help

[4] "B" map is a term historically used in Orange County for a Tentative, Vesting Tentative, or a Final Tract Map that further subdivides master developer lots created by a parent "A" map and that results mostly in individual single or multi-family residential legal lots. In general, "B" maps would refer to a builder's subdivision.

reduce fire hazard and enhance emergency response times. This includes installation of signal preemption equipment (SC FIR-1)[5] and OCFA review of residential site plans (SC FIR-2).

The need for additional facilities is generally based on the ability of OCFA to meet response time objectives when responding to an emergency call. OCFA strives to have an engine on the scene within five to seven minutes after a 9-1-1 call has been placed (OCFA 2016b). In determining the number and location of fire stations required in the Ranch Plan, the ability to provide fast and efficient access to all development areas is considered. Since the Project would not expand the OCFA service area or result in an increase in response times due to having to travel a greater distance to respond to calls there would not be a need for additional fire stations beyond those planned for the Ranch Plan to service the Affordable Housing sites. However, all three Project development scenarios would increase the number of residents living in the Ranch Plan area; therefore, there would be an incremental increase in the number of service calls to OCFA. Though the total number of units would be greater than the number of units specified in the SFPA, the Affordable Housing sites would all be located in the development area of the Ranch Plan and would be within three miles of an operational OCFA fire station as required by the SFPA. This would enable OCFA to meet response time objectives. Therefore, the Project would be able to be serviced by the proposed fire stations and the incremental increase would not be sufficient to require an additional fire station beyond those identified in the SFPA.

The future fire stations provided as part of the Ranch Plan would adequately serve the needs of the proposed Affordable Housing units in addition to the approved Ranch Plan. No additional facilities would be required; therefore, no impacts would occur related to the provision of new or physically altered facilities and no mitigation measures would be required.

Impact Conclusion: *The future fire station facilities associated with the Ranch Plan Planned Community would be adequate to serve the proposed Affordable Housing units, and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities would occur with any of the Project development scenarios pursuant to Threshold 4.7-1 as it pertains to fire services.*

No Project Alternative

The No Project Alternative assumes that no Affordable Housing units would be developed; therefore, there would be no increase demand for fire protection services. As discussed previously, RMV has agreed to provide the fire station facilities necessary to ensure acceptable levels of fire protection service within the Ranch Plan. These facilities would be developed as part of the implementation of the Ranch Plan, regardless of implementation of any Affordable Housing units. Therefore, no impacts would occur with the No Project Alternative related to the provision of new or physically altered facilities.

Impact Conclusion: *The No Project Alternative would not require the construction of new fire protection facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times and other*

[5] SC FIR-1, which provides for signal preemption equipment for signalized intersections, is identified as being applicable to Affordable Housing developments. The responsibility of installation of signals may be a shared responsibility if the signal serves more than just the Affordable Housing development. This would be determined at the time of site plan review.

performance objectives. No impact would occur under the No Project Alternative pursuant to Threshold 4.7-1 as it pertains to fire services. No mitigation measures are required.

Mitigation Program

Standard Conditions

No impacts have been identified but dependent on the site design, standard conditions may apply to the Affordable Housing developments at subsequent phases of approval.

SC FIR-1 Prior to the recordation of the applicable subdivision map, if determined necessary by the Fire Code Official in consultation with the Manager, Permit Services, the Applicant shall enter into an agreement with the County for the installation of traffic signal preemption equipment for any signalized intersections providing direct access to the site. The clearance of this condition shall be by the Manager, Permit Services based on evidence that an agreement, accompanied by appropriate financial security is in place. The agreement shall be terminated when financial security is released (County Standard Condition FP01).

SC FIR-2 Prior to issuance of a building permit, the applicant shall provide a residential site plan for review and approval by the Fire Code Official. *Note-refer to the OCFA website to obtain a copy of "Residential Site Review Assistance" form for information regarding the submittal requirements (County Standard Condition FP06).

Mitigation Measures

No significant impacts are identified for fire protection services for any of the Project development scenarios; therefore, mitigation measures are required.

Level of Significance After Mitigation

There would be no impacts to fire protection services with any the Project development scenarios or with the No Project Alternative. No mitigation measures would be required.

4.7.2 POLICE PROTECTION

This section discusses Project-related impacts to police protection services in the vicinity of the Project site.

Regulatory Setting

There are no federal, State, or local regulations related to police protection that are applicable to this Project. The Project's consistency with applicable General Plan goals and policies is provided in Section 4.4, Land Use and Planning.

Methodology

The police protection analysis is based on information collected from the Orange County Sheriff Department (OCSD) website. Factors to consider when assessing the need for provision of new or physically altered government facilities is ability for the OCSD to provide service to the Project site and maintain response time objectives. OCSD's response goal for emergency calls requiring lights and siren is to arrive within 5 minutes, and within 12 minutes for calls that do not require lights and siren (OCSD 2016e).

Existing and Alternative Baseline Conditions

The OCSD provides police protection services to unincorporated Orange County and contracts with numerous cities in the County as well. Additionally, the OCSD maintains mutual aid agreements with the law enforcement agencies in the County with which the OCSD does not contract. The OCSD is comprised of approximately 4,000 sworn and professional staff members and more than 800 reserve personnel. The OCSD consists of 5 organizational Commands comprised of 21 separate Divisions, including the South Operations Division, which was recently split into the Southwest and Southeast Substations (OCSD 2016a).

The Project site would be served by the new Southeast Operations Division (Saddleback Station), which opened in April 2015 and serves over 273 square miles and over 280,753 residents. The Southeast Operations Division provides police services to unincorporated communities of Coto de Caza, Ladera Ranch, Las Flores, Wagon Wheel, Trabuco Canyon, and Rancho Mission Viejo. Southeast Operations Division is served by 65 patrol cars and approximately 223 staff members, of which 168 are sworn peace officers (OCSD 2016b).

The Southeast Division works in partnership with the Southwest Division to provide special services to all contract cities and unincorporated areas. The Southwest Operations Division is stationed at 11 Journey in the City of Aliso Viejo; the station supports 270 sworn and professional staff and houses Southwest Operations Division support personnel, Southwest Investigations, the Regional Traffic Office, and several other specialized investigative teams (OCSD 2016c)

Thresholds of Significance

In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to police protection if it would:

Threshold 4.7-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(ii) Police protection.

Impact Analysis

Threshold 4.7-2

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(ii) Police protection?

All Project Development Scenarios

During construction and use of the Project, the need for police and emergency services would grow due to the increase in population and associated potential for additional crime and accidents. Crime and safety issues during Project construction may include theft of building materials and construction equipment, malicious mischief, graffiti, and vandalism. However, after construction, the proposed land uses are anticipated to generate a typical range of police service calls as similar developments (e.g., vehicle burglaries and residential thefts).

The Ranch Plan will be served by the OCSD out of the Southeast Operations Division. This facility, which opened in 2015, has been designed to meet the needs of the southeastern portion of the OCSD service area, which includes the Project site. As discussed above, the existing Sheriff Substations would serve the needs of the Ranch Plan area, including the proposed Affordable Housing sites. These existing substations are currently fully equipped and able to serve the long-term needs of the community. Based on communication with the OCSD, Scenario 3 (1,110 affordable units) would require 2 additional staff,[6] which would report to the Southeast Operations Division. However, this facility is sized to meet the long-term service demand for south Orange County and additional facilities would not be required. Therefore, Scenarios 1 and 2, which propose fewer Affordable Housing units, would also not require additional facilities (OCSD 2016d). The Affordable Housing sites would be located within the geographic limits of the Southeast Operations Division service area. The patrol units are dispersed throughout the region to facilitate timely response to emergency calls. OCSD have not identified any service response issues associated with serving the Ranch Plan development. There would be no greater travel time to service the Affordable Housing sites as the rest of the Ranch Plan; therefore, the sites would be able to be reached in a timeframe consistent with response time objectives.

Based on the population generated by the Project development scenarios (1,023 people for Scenario 1; 1,363 people for Scenario 2; and 2,045 people for Scenario 3), the Project would be expected to generate calls for police services. The additional population associated with the Project represents a small increase compared to the existing population currently being served (approximately a 0.36 percent increase with Scenario 1; a 0.48 percent increase with Scenario 2; and a 0.73 percent increase with Scenario 3). This incremental increase in calls for service would

[6] The metric used to determine staffing levels is based on a number of variables including calls for service, patrol workload, officer availability, average call time, officer-to-population rations, proactive and reactive patrol. OCSD is currently conducting a staffing analysis for the unincorporated communities, which includes Ranch Plan; however, this document is not complete (OCSD 2016e).

not be expected to require new or physically altered governmental facilities that would cause significant environmental impact. Should it be determined that additional staff is required to service the Project, the additional staff that may be required would operate out of the existing OCSD facilities.[7]

The Affordable Housing Project would not substantially increase the demand for police services to the point where new or expanded facilities would be required. Therefore, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered OCSD facilities or the need for new or physically altered OCSD facilities.

Impact Conclusion: *Existing OCSD Sheriff Substation facilities serving the Southeast and Southwest areas of Orange County would be adequate to serve the proposed Affordable Housing units and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities would occur with any of the Project development scenarios pursuant to Threshold 4.7-2 as it pertains to police protection services.*

No Project Alternative

The No Project Alternative assumes that no Affordable Housing units would be developed. As discussed previously, existing OCSD Substations currently provide police protection services to the Ranch Plan, regardless of implementation of any Affordable Housing units. Therefore, no impacts would occur with the No Project Alternative related to the provision of new or physically altered facilities.

Impact Conclusion: *The No Project Alternative would not require the construction of new police facilities that could cause physical impacts associated with the provision of new or altered government facilities pursuant to Threshold 4.7-2 as it pertains to police protection services. No mitigation measures are required.*

Mitigation Program

No significant impacts are identified for police services for any of the Project Alternatives; therefore, no mitigation measures are required.

Level of Significance After Mitigation

There would be no impacts to police services with any of the Project development scenarios or the No Project Alternative. No mitigation measures would be required.

[7] The funding for the hiring and training of additional staffing is derived from property taxes that would be generated by the Project. CEQA does not consider fiscal matters; and, therefore, they are not addressed as part of this Program EIR.

4.7.3 SCHOOLS

This section discusses Project-related impacts to school services in the vicinity of the Affordable Housing Implementation Program Project site.

Regulatory Setting

State

Senate Bill 50

The proposed project is located within the boundaries of the Capistrano Unified School District (CUSD).

The CUSD is under the State government's jurisdiction and is subject to *California Education Code* regulations under the governance of the State Board of Education. School capital facility funds come from the following sources: (1) State funding; (2) State bonds; (3) local General Obligation bonds; (4) developer fees; (5) surplus property sale proceeds; and (6) School Facility Improvement and Community Facilities Districts. Limited or no funding is available for school facilities from the federal government.

Senate Bill (SB) 50, which passed in 1998, provides a comprehensive school facilities financing and reform program, and enables a statewide bond issue to be placed on the ballot. The provisions of SB 50 allow the State to offer funding to school districts to acquire school sites; construct new school facilities; and modernize existing school facilities. SB 50 also establishes a process for determining the amount of fees developers may be charged to mitigate the impact of development on school facilities resulting from increased enrollment. Under this legislation, a school district could charge fees above the statutory cap only under specified conditions, and then only up to the amount of funds that the district would be eligible to receive from the State. According to Section 65996 of the *California Government Code,* development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation".

SB 50 establishes three levels of school impact developer fees that may be imposed upon new development:

- **Level 1** fees are the base statutory fees. These amounts are the maximum that can be legally imposed upon new construction projects by a school district unless the district qualifies for a higher level of funding. Level 1 school fees are a maximum of $3.36 per assessable square foot of residential construction and a maximum of $0.54 per square foot of enclosed and covered space for commercial/industrial development.
- **Level 2** fees allow the school district to impose developer fees above the statutory level, up to 50 percent of new school construction costs. To implement Level 2 fees, the governing board of the school district must adopt a School Facilities Needs Analysis (SFNA) and meet other pre-requisites in accordance with Section 659956.6 of the *California Government Code*. The SFNA documents that the district has met prerequisite eligibility tests and calculates the fee per square foot of new development. If the school district is eligible for State new construction funding, the State will match the Level 2 fees

if funds are available. As previously mentioned, limited State funds for new school construction are available from existing bond measures.

- **Level 3** fees apply if the State runs out of bond funds, allowing the school districts to impose 100 percent of the cost of the school facility or mitigation minus any local dedicated school monies.

The 2013–2014 State budget replaced the previous Kindergarten through 12th grade (K–12) finance system with a new Local Control Funding Formula (LCFF). For school districts and charter schools, the LCFF creates base, supplemental, and concentration grants in place of most previously existing K–12 funding streams, including revenue limits and most State categorical programs. The LCFF is projected to be fully implemented in eight years until which time local education agencies will receive roughly the same amount of funding they received in prior years plus an additional amount each year to bridge the gap between existing funding levels and the new LCFF target levels.

Methodology

The methodology used in this analysis assumes that the number of new students generated from the proposed Project is directly related to the type and amount of affordable housing constructed. To evaluate school impacts, student generation rates were applied to the proposed Project. Student generation rates are ratios of students per home and are generally based on recent construction history or districtwide data. This information was then compared to the capacity available at the nearby schools and acknowledgement of planned schools to determine if sufficient capacity is available.

Existing and Alternative Baseline Conditions

The proposed Project is located within the boundaries of the CUSD. The CUSD encompasses approximately 195 square miles throughout all or part of the cities of San Clemente, Dana Point, San Juan Capistrano, Laguna Niguel, Aliso Viejo, Mission Viejo, and Rancho Santa Margarita and the communities of Las Flores, Coto de Caza, Dove Canyon, Ladera Ranch, Sendero/Rancho Mission Viejo, and Wagon Wheel. The CUSD operates 64 schools/programs including 33 elementary schools, 2 K–8 schools, 10 middle schools, 6 comprehensive high schools, 5 charter schools, and 8 alternative schools/programs. The CUSD is the largest employer in south Orange County with approximately 4,000 employees to support the District's approximately 54,000 students. (CUSD 2016).

As of August 2015, 54,036 students were enrolled in the CUSD, including 23,359 elementary school students; 12,914 middle school students; and 17,583 high school students. Tesoro High School, with a 2013–2014 enrollment of 2,345, is the only CUSD existing school immediately adjacent to the Ranch Plan boundaries (CUSD 2016). The Affordable Housing sites are located within the attendance boundaries of several existing schools. Table 4.7-2, Capistrano Unified School District Schools Near the Ranch Plan Planned Community, identifies these schools and provides both enrollment and capacity figures for the 2013–2014 school year.

TABLE 4.7.2
CAPISTRANO UNIFIED SCHOOL DISTRICT SCHOOLS
NEAR THE RANCH PLAN

School Name	School Capacity	2013–2014 Enrollment	Available Capacity
Elementary Schools			
Las Flores	708	568	140
Wagon Wheel	970	608	362
Harold Ambuehl	667	415	252
Oso Grande	1,092	1,154	-62
Middle Schools			
Las Flores	1,247	1,071	176
Ladera	1,457	914	543
Marco Forster	1,547	1,352	195
High Schools			
San Juan Hills	2,563	2,236	327
Tesoro	2,428	2,345	83
Source: Vesque 2016, CUSD 2016.			

As the schools in the Ranch Plan are built school attendance boundaries will be adjusted. CUSD has a planned kindergarten through eighth grade school site located in the eastern portion of Planning Area 2. The school, named Esencia School, is expected to be open in fall 2018. Capacity information is not known at this time.

Thresholds of Significance

In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to schools if it would:

Threshold 4.7-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(iii) Schools.

Impact Analysis

Threshold 4.7-3

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(iii) Schools?

All Project Development Scenarios

FEIR 589 identified the need for five elementary school sites, two of which would likely be located within Planning Area 3, and one middle school site which is also likely to be located within Planning Area 3 of the Ranch Plan. The precise number, locations, and phasing of the various school sites would be identified in conjunction with the CUSD as the Ranch Plan is developed. As part of the Alternative Baseline (see Section 3.4.4 for a discussion of the Alternative Baseline), the implementation of the Ranch Plan is assumed as part of the baseline, including the infrastructure required to serve the Ranch Plan. Therefore, these planned schools are assumed to be constructed, fully equipped, and able to serve the community prior to the development of the proposed Affordable Housing sites. The Affordable Housing sites would be developed in conjunction with the approved development for the Ranch Plan these schools would be constructed as needed to serve the demands of the new community. However, the Project would result in development levels above the 14,000 units approved as part of the Ranch Plan. Therefore, there is the potential the size of the schools would need to be increased to accommodate the additional new students.

To evaluate the potential impact associated with the Affordable Housing Project, the CUSD's student generation rate for high density multi-family residential is utilized to assess the number of future students for each for each school level. This data is shown for each of the Project development scenarios in Table 4.7-3, Students Generated by the proposed Project.

TABLE 4.7.3
STUDENTS GENERATED BY THE PROPOSED PROJECT

Scenario	Dwelling Units[a]	Elementary School[b]	Middle School[c]	High School[d]	Total
1	417	42	17	17	**76**
2	555	56	22	22	**100**
3	833	83	33	33	**149**

[a] 25% of the proposed Project's dwelling units would be dedicated to senior housing and are not included in this analysis.
[b] Elementary school student generation rate is 0.10.
[c] Middle school student generation rate is 0.04.
[d] High school student generation rate is 0.04.
Source: Vesque 2015.

As shown in Table 4.7-3, the proposed Project would generate between 76 and 149 additional students in the Project area, depending on the Project development scenario. These new students would be distributed throughout the Project study area based on the number of Affordable Housing sites in each Planning Area (the majority would be in Planning Area 3 because there are up to seven Affordable Housing sites located in this Planning Area). Based on current enrollment and capacity statistics, there is adequate capacity available in the local elementary, middle, and high schools to accommodate the additional students generated from the Affordable Housing Project. However, as noted above, additional school facilities are planned throughout the local area to serve the Ranch Plan, which would also be generating new students.[8] These additional school facilities would be constructed as needed during buildout of the Ranch Plan. At this time the size and capacity of the new schools serving Planning Areas 3 through 8 cannot be know because plans have not been developed. At the time the new schools are planned, the sizing of the facilities would be designed to accommodate the additional students generated by the Affordable Housing developments. The Project represents a small percent of the total number of school children that would be generated from the Ranch Plan development area (i.e., both the Ranch Plan and the Affordable Housing units). Table 4.7.4 identifies the percent of school children at each level that would be generated by the Project.

TABLE 4.7.4
PERCENTAGE OF RANCH PLAN DEVELOPMENT AREA
STUDENTS GENERATED BY THE PROPOSED PROJECT

Scenario	Elementary School	Middle School	High School	Total
1	1.6	1.9	2.2	1.8
2	2.1	2.5	2.8	2.3
3	3.2	3.8	4.2	3.5
Source: FEIR 589 2004 (for Ranch Plan student generation numbers)				

The future schools will be constructed in areas designated for development by the Ranch Plan and site preparation (mass grading) would be completed as part of the mass grading of the Planning Area, similar to the Project. Therefore, the physical impacts associated with the new schools have been evaluated at program level as part of FEIR 589 and no additional physical impacts are anticipated.

Additionally, the Affordable Housing Project would be subject to payment of school impact developer fees pursuant to SB 50, which would offset the potential cost to the school districts for construction or expansion of facilities.

Impact Conclusion: *The number of students that would be generated by the Project development scenarios would not require the construction of new school facilities beyond those already planned as part of the Ranch Plan. The physical impacts of the new facilities have been addressed at a programmatic level as part of FEIR*

[8] FEIR 589 identified that the Ranch Plan would generate a total of 4,288 additional students. The distribution of these students by school level is 2,624 elementary school students, 880 middle school students, and 784 high school students. Subsequent to the approval of the Ranch Plan, CUSD opened San Juan Hills High School. New elementary and middle schools (or kindergarten through eighth grade schools) would be constructed as part of the Ranch Plan.

589 and no substantial new physical impacts are anticipated. Therefore, the Project development scenarios would not could cause significant environmental impacts, pursuant to Threshold 4.7-3. Impacts would be less than significant.

No Project Alternative

The No Project Alternative assumes that the proposed project is not implemented. As previously mentioned, RMV and the CUSD have entered into a school facility agreement for the Ranch Plan. Regardless of whether the proposed Project is implemented, the number of school facilities would not be altered.

Impact Conclusion: *The No Project Alternative does not require the construction of new school facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios and other performance objectives. There would be no impact pursuant to Threshold 4.7-3.*

Mitigation Program

Standard Conditions of Approval

SC SCH-1 Prior to issuance of the first occupancy permit, the Project Applicant shall be responsible for payment of all applicable school impact developer fees pursuant to Senate Bill (SB) 50.

Mitigation Measures

No significant impacts are identified for schools for any of the Project development scenarios; therefore, no mitigation measures are required.

Level of Significance After Mitigation

Potential physical impacts associated with the provision of school facilities would be less than significant prior to implementation of the mitigation program with any of the Project development scenarios or the No Project Alternative. The Affordable Housing Project would be required to comply with SC SCH-1, requiring the payment of school impact developer fees pursuant to SB 50, which would serve as a funding source for the provision of new school facilities. Though CEQA does not consider fiscal matters this standard condition is included for informational purposes.

4.7.4 PARKS

This section discusses potential impacts to parks as related to the Project. It examines the existing and future parks and recreation opportunities in the Project vicinity and the potential impacts of the Project on these resources. Recreational resources, including parks, are also addressed in Section 4.8, Recreation, of this EIR.

Regulatory Setting

State

Quimby Act

As discussed in greater detail in Section 4.8, Recreation, Counties in California are allowed to pass an ordinance that requires, as a condition of approval of a subdivision, either the dedication of land, the payment of a fee in lieu of dedication, or a combination of both for park or recreational purposes as per Section 66477 of the *California Government Code.* In response to this requirement, the County of Orange and RMV developed the *Ranch Plan Planned Community Local Park Implementation Plan* (LPIP) to establish the amount of parkland that RMV would dedicate within the Ranch Plan.

Methodology

As discussed in detail in Section 4.8, Recreation, the information in this section is based on the Recreation Element and the Transportation Element of the *County of Orange General Plan*. To assess the required additional parkland required by the Project, the expected population growth was developed using the population generation factor of 1.99 persons per dwelling unit (du) for development between 15.6 and 25.5 du per acre and 1.4 persons per senior unit.

Existing and Alternative Baseline Conditions

As discussed further in Section 4.8, Recreation, there are over 13,000 acres of parkland and recreational facilities in the vicinity of the Ranch Plan, including regional parks; local parks; riding and hiking trails; and bikeways. Project residents would have access to all public recreational facilities. These facilities are discussed in Section 4.8 and their locations are depicted on Exhibit 4.8-1 in Section 4.8, Recreation.

Existing park facilities within the local area are limited due to the ongoing development of the Ranch Plan; however, based on approved Subarea Plans for Planning Area 3, several park and recreation facilities are planned for development including up to 100 acres of parkland in Planning Area 3.

Thresholds of Significance

In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to parks if it would:

Threshold 4.7-4 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(iv) Parks.

Impact Analysis

Threshold 4.7-4

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(iv) Parks?

All Project Development Scenarios

The County Local Park Code requires new development to provide 2.5 acres of parkland for every 1,000 residents. This standard has been established to ensure there are sufficient recreational facilities to serve the population without having an impact to existing parks from over use. The Ranch Plan LPIP requires 96 acres of parkland within the Ranch Plan. As discussed later in Section 4.8, Recreation, the Master Plans for Areas 1, 2, 3, and 4 indicate that RMV will provide a greater amount of parkland than required in the LPIP, including up to 100 acres of parkland planned in Planning Area 3. The Dedicated Lands are intended for the development of Affordable Housing so there would not be land to provide additional parkland to service the sites. However, there is sufficient parkland planned as part of the Ranch Plan to serve the additional population associated with the Affordable Housing units. The impacts associated with the development of the parkland, which would be done as part of the Ranch Plan development, has been addressed by FEIR 589. Maintenance of the Ranch Plan parkland will be done by the master maintenance corporation established for the Ranch Plan. Therefore, no additional impacts related to the provision of new or physically altered park facilities are anticipated. Additionally, the service ratio (parkland to population) would be met within the Ranch Plan, though not specifically by the Project.[9]

[9] It should be noted, the Housing Element has provisions for the waiver of park fees for affordable housing developments.

Impact Conclusion: *The amount of parkland that will be included in the Ranch Plan Planned Community would provide Project residents with acceptable levels of service and would not require the construction of new facilities that could potentially cause significant environmental impacts. Therefore, there would be no new physical impacts associated with parklands pursuant to Threshold 4.7-4 and no mitigation is required.*

No Project Alternative

The No Project Alternative assumes that the proposed Project is not implemented. The County and RMV have agreed upon the amount of parkland that will be included in the Ranch Plan and that figure will not be altered if the proposed Project is not implemented.

Impact Conclusion: *The No Project Alternative does not require additional park facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios and other performance objectives. There would be no impact.*

Mitigation Program

No significant impacts are identified for parks for any of the Project development Scenarios; therefore, no mitigation measures are required.

Level of Significance After Mitigation

There would be no impacts to parks with any of the Project development scenarios or the No Project Alternative. No mitigation measures would be required.

4.7.5 OTHER PUBLIC FACILITIES

Regulatory Setting

There are no federal, State, or local regulations related to library services that are applicable to this Project. The Project's consistency with applicable General Plan policy is provided in Section 4.4, Land Use and Planning.

Methodology

The Orange County Public Libraries (OCPL) was contacted to determine if the proposed Project would significantly impact the ability to provide services. Based on correspondence with the OCPL, it does not set a service standard as there is no service standard set forth by the American Library Association (Fried 2015). Information regarding existing facilities was gathered from the OCPL website.

Existing and Alternative Baseline Conditions

Library services are provided to the local area by OCPL. The OCPL is a network of public community libraries serving the population of Orange County. The OCPL provide a variety of library services to the public, including a variety of books and other printed materials, audio visual collections, government documents, newspapers, magazines, and public access internet terminals. Additionally, most branches have regular events for both children and adults, including story time, classes and workshops, technology tutoring (OC Public Libraries 2016a). The closest library is the Ladera Ranch Library, located at 29551 Sienna Parkway in Ladera Ranch (OC Public Libraries 2016b). According to the Master Area Plan for Planning Area 3 and Subarea Plan for Subarea 3.5, up to 20 acres of land had been set aside for community facilities, including a potential library.[10] This library would be part of the OCPL and would serve the Ranch Plan.

4.7.6 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to other public facilities if it would:

Threshold 4.7-5 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(v) Other Public Facilities.

Impact Analysis

Threshold 4.7-5

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(v) Other Public Facilities?

All Project Development Scenarios

Increased demands for library services are primarily driven by increases in permanent population, which are associated with development of residential land uses. Development of the Affordable Housing Project would increase demand for library services due to the increased population and related demand for library services. Historically, the OCPL system used an

[10] Though the Board of Supervisors discontinued the Library Fee Program, residential development in the Ranch Plan pays a library fee as part of the Development Agreement between the County and RMV.

average of 0.2 square foot of library facility per capita and 1.5 volumes per capita as a planning guide (Fried 2015). Using this historic planning guide, the increased demand associated with the population generated by the Project would be as follows:

- **Scenario 1**—approximately 205 square feet of library space and 1,534 volumes
- **Scenario 2**—approximately 273 square feet of library space and 2,044 volumes
- **Scenario 3**—approximately 409 square feet of library space and 3,068 volumes

However, library services have changed in the last five years and, according to the OCPL, the focus is on incorporating electronic materials (e-materials) and not on volumes in the traditional sense (Fried 2015). Use of electronic materials facilitates the trend for accessing information online and reduces the size of "brick and mortar" facilities needed to serve the population.

As noted previously, Subarea Plan 3.5 provides up to 20 acres for community facilities, which can include a library facility should the County deem a new facility is required. Such a facility could be part of a joint facility with other community uses. Should it be determined that a library is required in the future, its construction would occur within the Ranch Plan in an area that is already assumed for construction as part of FEIR 589. No physical impacts beyond what was evaluated in FEIR 589 would occur. Therefore, no impacts are anticipated.

Impact Conclusion: *Though the Project would increase the population in the area resulting in an incremental increased demand for library services, the Project would not create a need for construction of new library facilities beyond what is planned for the Ranch Plan. Therefore, no significant environmental impacts are anticipated in order to maintain acceptable service ratios. There would be no impacts pursuant to Threshold 4.7-5 and no mitigation is required.*

No Project Alternative

The No Project Alternative assumes that the proposed Project is not implemented. The No Project Alternative would not create any increased need for library facilities.

Impact Conclusion: *The No Project Alternative does not require additional library facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios and other performance objectives. There would be no impact pursuant to Threshold 4.7-5.*

4.7.7 MITIGATION PROGRAM

No significant impacts are identified for libraries for any of the Project development scenarios; therefore, no mitigation measures are required.

4.7.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

There would be no impacts related to library services with any of the Project development scenarios or the No Project Alternative. No mitigation measures would be required.

4.7.9 CUMULATIVE IMPACTS

Fire Protection

The cumulative impact discussion considers the impacts of future growth and development in unincorporated Orange County, within OCFA's service area. The growth associated with the Ranch Plan would have the most influence on cumulative impacts because of the amount of development approved and the Project is in the same geographic location. As discussed in the analysis of Threshold 4.7-1, RMV is required to provide the necessary land, facilities, and equipment for additional fire stations that will provide adequate fire protection services to the Ranch Plan. Though all three Project development scenarios would increase the number of residents living in the Ranch Plan area, the Affordable Housing would be within three miles of an operational OCFA fire station as required by the SFPA, which would enable OCFA to meet response time objectives. When assessing cumulative impacts related to fire protection there would be a need for future fire stations; however, these facilities would be provided as part of Ranch Plan project and are assumed as part of the Alternative Baseline for the Project. Additionally, the physical impacts associated with the new facilities have been addressed in FEIR 589 prepared for the Ranch Plan. Cumulative impacts pursuant to Threshold 4.7-1 (substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities) would be less than significant and no additional mitigation measures are required.

Police Protection

Similar to fire protection services, the growth associated with the most influence on cumulative impacts would be Ranch Plan because it is in the same geographic location as the Project. As mentioned in Section 4.7.2, existing OCSD facilities will serve the Ranch Plan. The combined Ranch Plan and Affordable Housing Project would result in a cumulative increase in the number of service requests because of the greater population; however, the cumulative growth (e.g., the Ranch Plan and the Project) would be located within the geographic limits of the Southeast Operations Division and there would be no greater travel time to service the combine projects. Because the recently opened Southeast Operations Division sized the Saddleback Valley Station understanding the future development in Ranch Plan, and the incremental increase in service calls associated with the Project the cumulative effect of the future growth in the region, including the Project, is not expected to require construction of new facilities. Therefore, no physical impacts associated with the need for new or altered facilities to provide police protection services are anticipated for the cumulative projects. There would be no cumulative impacts pursuant to Threshold 4.7-2 (substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities) and no mitigation measures are required.

Schools

The cumulative impact discussion considers the impacts of future growth and development in unincorporated Orange County, within CUSD's enrollment boundaries, which is predominantly growth associated with the Ranch Plan. The cumulative growth, specifically the Ranch Plan, would exceed the capacity of the existing schools. However, as discussed in the analysis of Threshold 4.7-3, additionally schools are planned as part of the Ranch Plan. These new school

facilities are assumed as part of the Alternative Baseline for the Project and the physical impacts associated with the new schools have been addressed in of FEIR 589 prepared for the Ranch Plan. Cumulative impacts pursuant to Threshold 4.7-3 (substantial adverse physical impacts associated with the provision of new or physically altered school facilities) would be less than significant and no additional mitigation measures are required.

Parks

The cumulative impact discussion considers the impacts of future growth and development in unincorporated Orange County, which is predominantly growth associated with the Ranch Plan. As discussed in the analysis of Threshold 4.7-4, parkland provided by the Ranch Plan. Therefore, the need for parkland to serve the additional population associated with the Affordable Housing units is sufficiently covered by the planned recreational facilities in the Ranch Plan. The physical impacts associated with the provision of the parkland has been evaluated in FEIR 589 as part of the environmental review process for the Ranch Plan. Therefore, the Project would not contribute to cumulative adverse physical impacts associated with the provision of new or physically altered parkland facilities and no additional mitigation measures are required.

Other Public Facilities

The cumulative impact discussion considers the impacts of future growth and development in unincorporated Orange County, within OCPL service area, which is predominantly growth associated with the Ranch Plan. As discussed in the analysis of Threshold 4.7-5, new library facilities planned for the Ranch Plan would service both the Project and the Ranch Plan. Based on the Subarea Plans approved for Planning Area 3, it is anticipated that the new library would be provided in the Ranch Plan Subarea 3.5. The physical impacts associated with the provision of the library has been evaluated at a programmatic level in FEIR 589 as part of the environmental review process for the Ranch Plan. Cumulative impacts pursuant to Threshold 4.7-5 (substantial adverse physical impacts associated with the provision of new or physically altered library facilities) would be less than significant and no additional mitigation measures are required.

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4.8 RECREATION

This section discusses potential impacts to recreation as related to the Project. It examines the existing and future parks and recreation opportunities in the Project vicinity and the potential impacts of the Project on these resources.

4.8.1 REGULATORY SETTING

Quimby Act

California allows a city or county to pass an ordinance that requires, as a condition of approval of a subdivision, either the dedication of land, the payment of a fee in lieu of dedication, or a combination of both for park or recreational purposes (*California Government Code,* Section 66477). This legislation, commonly called the "Quimby Act", establishes a maximum parkland dedication standard of 3 acres of parkland per 1,000 residents for new subdivision development unless the amount of existing neighborhood and community parkland exceeds that limit.

The County of Orange Local Park Code ("Park Code"), Section 7-9-502(g) requires 2.5 acres of land per 1,000 persons when residential dwelling units are proposed. The code also allows for the payment of in lieu fees or a combined provision of parkland and payment of in lieu fees. This requirement is also identified in the Recreation Element of the *County of Orange General Plan.*

Subsequent to the approval of the Ranch Plan Planned Community (the Ranch Plan), the *Ranch Plan Planned Community Local Park Implementation Plan* (LPIP) was approved (RMV 2007).[1] The LPIP is a program designed to plan and monitor the provision and development of local parks in the Ranch Plan in accordance with Park Code requirements. The LPIP is maintained and updated over time as the Ranch Plan is implemented. The LPIP provides for up to 25 percent of the parkland to be private parkland.

4.8.2 METHODOLOGY

The information in this section is based on the Recreation Element (including the Regional Hiking and Trail Map) and the Transportation Element (Appendix VII-5), of the *County of Orange General Plan*. Information regarding off-site recreational facilities involved a review of the Orange County Parks' website and use of Internet data for the surrounding areas. Additionally, the Ranch Plan LPIP and Master Area Plans and Subarea Plans for Planning Areas 1 through 4 of the Ranch Plan were consulted.[2] The impact analysis is based on an evaluation of the Project's consistency with the applicable programs designed to meet the recreational needs within the Project Area. To determine whether the Project would have a significant impact on recreational resources, the expected population growth was developed using the population generation

[1] FEIR 589 identified that 82 acres of local parkland would be required to support the Ranch Plan Planned Community. This figure was derived by multiplying the projected Ranch Plan population (32,823 residents) by the requirement for 2.5 acres of parkland per 1,000 residents. The *Ranch Plan Planned Community Local Park Implementation Plan* (LPIP) identifies a total of 96 acres of public and private parkland as being required with full buildout of all the approved units. The LPIP would prevail, with the 96 acres being comprised of creditable acres of both land and improvements.

[2] Master Area Plans and Subarea Plans, which identify the amount of parkland and other recreational resources in a planning area, have not been processed for Planning Areas 5 and 8 at this time.

factor of 1.99 persons per dwelling unit (du) for the family units (based on Park Code Section 7-9-522 for development between 15.6 and 25.5 du per acre) and 1.4 persons per senior unit (based on the generation factor developed with the Center for Demographic Research [CDR] for the Ranch Plan).

4.8.3 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

The Orange County General Plan's Recreation Element indicates that the County has approximately 60,000 acres of regional recreation facilities, which includes parks, nature preserves, beaches, historic parks, and harbors. Approximately 10 percent of the land in Orange County is dedicated to the Regional Parks and Open Space (OC Parks). There are over 13,000 acres of County regional parks, numerous public parks, and recreation areas surrounding the Ranch Plan, a number of which are located within a two-mile radius of the Ranch Plan boundary. In addition to these nearby parks, residents can enjoy a variety of other recreation opportunities, such as hiking and riding, on a network of regional trails.

Parklands

Regional Parks

The countywide system of regional parks provides land dedicated to park and recreation uses in Orange County. Three regional parks—General Thomas F. Riley Wilderness Park, Ronald W. Caspers Wilderness Park, and O'Neill Regional Park—are located within a two-mile radius of the Ranch Plan boundary. Each of these parks is part of the County's overall park system and provides large expanses of area for active and passive recreational uses. These regional parks are discussed below.

Thomas F. Riley Wilderness Park

The 544-acre Thomas F. Riley Wilderness Park is located in unincorporated Orange County south and west of the community of Coto de Caza and east of the communities of Rancho Santa Margarita, Las Flores, and Wagon Wheel Canyon. In accordance with the wilderness park guidelines established in the Orange County General Plan Recreation Element, the park land "retains its primeval character with minimal improvements and which is managed and protected to preserve natural processes" (County of Orange 2014). Amenities offered at the park include bicycle, equestrian, and hiking trails; a picnic area; and a small amphitheater/outdoor classroom.

Ronald W. Caspers Wilderness Park

The 8,000-acre Ronald W. Caspers Wilderness Park is located in unincorporated Orange County adjacent to Planning Area 3 of the Ranch Plan. The entrance of the park is located at the intersection of Ortega Highway and Caspers Park Road. Amenities available at the park include an amphitheater; barbeques; a playground/tot lot; bicycle, equestrian, and hiking trails; and a camping area.

O'Neill Regional Park

The 4,500-acre O'Neill Regional Park is located in unincorporated Orange County, situated in Trabuco and Live Oak Canyons. The entrance of the park is located at the convergence of Trabuco Canyon Road and Live Oak Canyon Road. Amenities available at the park include bicycle, equestrian, and hiking trails; an amphitheater; barbeques; a picnic area; camping areas; and a playground/tot lot.

Local Parks

Community parks provide active and/or passive open space areas at non-regional levels and are designed with local residents in mind. The Orange County General Plan Recreation Element's Master Plan of Local Parks component identifies goals, objectives, and policies, and it provides implementation programs to meet the local recreational needs of unincorporated Orange County.[3] The Master Plan of Local Parks, in conjunction with the Local Park Code, is intended to provide for comprehensive local park planning and programming (i.e., acquisition, development, operation, maintenance, and financing). As previously indicated, the Orange County Local Park Code requires payment of in lieu fees or provision of 2.5 acres of land per 1,000 persons when residential dwelling units are proposed.

The Master Area Plan and Subarea Plans for Planning Area 3 have identified 100 acres of parkland designated for future development. Additionally, there is an existing community park in Planning Area 1, Sendero Field, which is located at the intersection of Antonio Parkway and Ortega Highway. This 15-acre park offers a variety of recreational activities, including a children's adventure play area, a soccer field, a baseball/softball field, four pickle ball courts, an event lawn, and a plaza (RMV 2015a). Planning Area 1 also has the Sendero and Gavilan Clubs[4] and Linear Park in Planning Subarea 1.1, which encompasses a total of 8.9-acre. Facilities in Planning Area 2 include 10.63 acres in Subarea 2.1 (identified as Canyon House, Dog Park, Outlook, Sunrise, and Sunset) and 6.8 acres in Subarea 2.2 (identified as Hilltop Club, Getaway, Esencia Green, and Campout). Subarea 2.3 will also have a sports park and a linear park.

The Subarea Plans identify within the residential acreage areas that would be designated for recreational uses, including, but not limited to, community clubhouses, swimming pools, sports fields, sports courts, tot lots, and pedestrian and bike trails. The acreage of parkland is tracked through the Ranch Plan PC Statistical Table.

Riding and Hiking Trails

The County's regional riding and hiking trails link the harbors, beaches, parks, open space, and recreational areas. The Countywide regional trail network includes 348 miles of existing and proposed trails, including areas regulated by governmental agencies other than the County of Orange. These riding and hiking trails provide for equestrian, pedestrian, and mountain biking use.

[3] Consistency with the goals, objectives, and policies of the *County of Orange General Plan's* Recreation Element is addressed in Section 4.4, Land Use, as part of the planning and policy evaluation.

[4] Gavilan Club and pool is open to age-qualified residents only.

There are three regional riding and hiking trails identified on the County of Orange Master Plan of Regional Riding and Hiking Trails in proximity to the Project; however, none of them have been developed at this time. These regional facilities do not traverse the Affordable Housing sites identified in Planning Areas 3 and 4, but would be located in the Ranch Plan. Based on the Ranch Plan Trails and Bikeways Concept (Exhibit 4.8-1), one of these proposed Regional Riding and Hiking Trail will be located along the eastern edge of Planning Area 5.[5] The location of the Affordable Housing site in Planning Area 5 is not currently known because the Subarea Plans have not been prepared at this time; therefore, the location of the trail in proximity to the Affordable Housing site is not known. Construction of these regional riding and hiking trails would occur in conjunction with later phases of the Ranch Plan development when connectivity to other recreational resources, such as Ronald W. Caspers Wilderness Park, can be made.

In addition to the regional riding and hiking trails, there are three planned community trails and a multi-purpose pathway that will be provided in the Ranch Plan development. The locations of these facilities within the Ranch Plan are depicted on Exhibit 4.8-1. It should be noted that the alignments for these trails are conceptual. Precise alignments will be determined when the trail is actually developed and factors such as public safety, environmental impacts, and development cost are considered. Additional local trails may be identified when tract maps are processed.

Bikeways

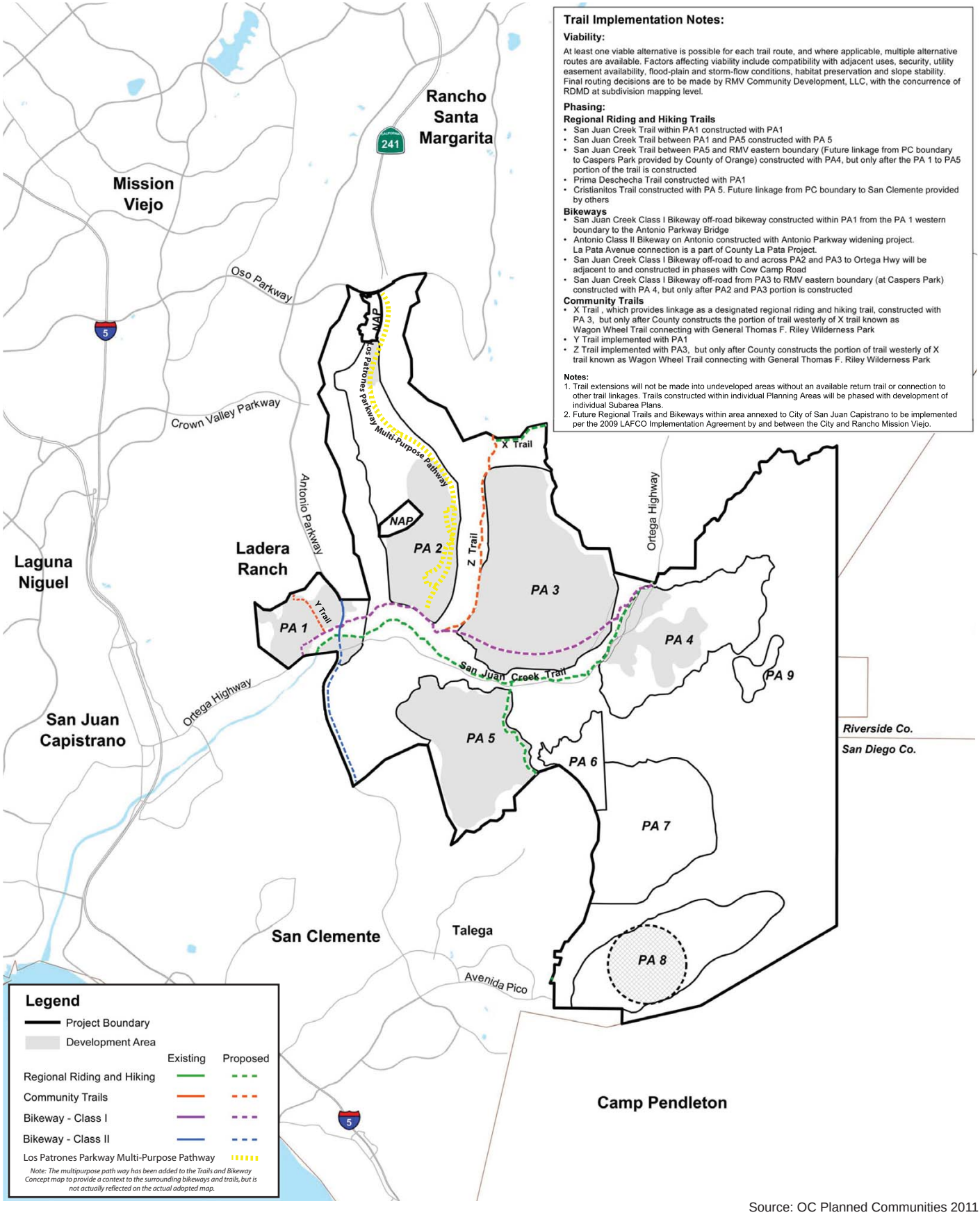
Bicycle routes provide an alternative transportation mode for all trips, including commuting, shopping, school, and recreation. The Orange County Bikeways Plan also addresses the recreational objectives of bicycling. This is done in concert with other County-wide recreational programs such as regional parks and riding and hiking trails.

The Orange County General Plan's Transportation Element identifies three types of bikeways:

- A Class I bicycle trail is a paved facility that is physically separated from a roadway and designated primarily for the use of bicycles. Crossflows by pedestrians and motorists are to be minimized.
- A Class II bicycle lane is a facility featuring a striped lane on the paved area of a road for preferential use by bicycles. It is located along the edge of the paved area outside the motor vehicle travel lanes. Parking is restricted within a Class II bike lane.
- A Class III bicycle route is a facility typically identified by green and white "Bike Route" guide signing only. There are usually no special lane designations, and parking may be permitted.

There are two designated bikeways in the Ranch Plan: an existing Class II bicycle lane on Antonio Parkway, and a proposed Class I bicycle trail along San Juan Creek. The San Juan Creek Bikeway is also on the Orange County Transportation Authority's (OCTA's) *Commuter Bikeway Strategic Plan* for regional bikeways.

[5] As discussed in Section 3.6.3, Project Phasing and Processing, the AHIA states Affordable Housing site(s) will be identified as part of Subarea Plans or subsequent Subarea Plan amendments. The Subarea Plans for Planning Areas 5 and 8 have not been processed at this time.



Trail Implementation Notes:

Viability:

At least one viable alternative is possible for each trail route, and where applicable, multiple alternative routes are available. Factors affecting viability include compatibility with adjacent uses, security, utility easement availability, flood-plain and storm-flow conditions, habitat preservation and slope stability. Final routing decisions are to be made by RMV Community Development, LLC, with the concurrence of RDMD at subdivision mapping level.

Phasing:

Regional Riding and Hiking Trails

- San Juan Creek Trail within PA1 constructed with PA1
- San Juan Creek Trail between PA1 and PA5 constructed with PA 5
- San Juan Creek Trail between PA5 and RMV eastern boundary (Future linkage from PC boundary to Caspers Park provided by County of Orange) constructed with PA4, but only after the PA 1 to PA5 portion of the trail is constructed
- Prima Deschecha Trail constructed with PA1
- Cristianitos Trail constructed with PA 5. Future linkage from PC boundary to San Clemente provided by others

Bikeways

- San Juan Creek Class I Bikeway off-road bikeway constructed within PA1 from the PA 1 western boundary to the Antonio Parkway Bridge
- Antonio Class II Bikeway on Antonio constructed with Antonio Parkway widening project. La Pata Avenue connection is a part of County La Pata Project.
- San Juan Creek Class I Bikeway off-road to and across PA2 and PA3 to Ortega Hwy will be adjacent to and constructed in phases with Cow Camp Road
- San Juan Creek Class I Bikeway off-road from PA3 to RMV eastern boundary (at Caspers Park) constructed with PA 4, but only after PA2 and PA3 portion is constructed

Community Trails

- X Trail , which provides linkage as a designated regional riding and hiking trail, constructed with PA 3, but only after County constructs the portion of trail westerly of X trail known as Wagon Wheel Trail connecting with General Thomas F. Riley Wilderness Park
- Y Trail implemented with PA1
- Z Trail implemented with PA3, but only after County constructs the portion of trail westerly of X trail known as Wagon Wheel Trail connecting with General Thomas F. Riley Wilderness Park

Notes:

1. Trail extensions will not be made into undeveloped areas without an available return trail or connection to other trail linkages. Trails constructed within individual Planning Areas will be phased with development of individual Subarea Plans.
2. Future Regional Trails and Bikeways within area annexed to City of San Juan Capistrano to be implemented per the 2009 LAFCO Implementation Agreement by and between the City and Rancho Mission Viejo.

Source: OC Planned Communities 2011

Planned Community Trails and Multi-Purpose Pathway

Exhibit 4.8-1

Orange County Affordable Housing Implementation Plan Program EIR

BonTerra PSOMAS

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4.8.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist the Project would result in a significant impact to recreation if it would:

Threshold 4.8-1 Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Threshold 4.8-2 Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.8.5 IMPACT ANALYSIS

Threshold 4.8-1

Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

All Project Development Scenarios

As discussed above, the County Local Park Code requires new development to provide 2.5 acres of parkland for every 1,000 residents. This standard has been established to ensure there are sufficient recreational facilities to serve the population without having an impact to existing parks from over use.

While the Ranch Plan LPIP requires 96 acres of public and private parkland to support the residents of the entire Ranch Plan, e Master Area Plans and Sub Area Plans for Areas 1, 2, 3, and 4 indicate that the Ranch Plan will provide a greater amount of parkland than required in the LPIP. The current development in Planning Areas 1 and 2 exceeds the commitment in the Subareas Plans for those two Planning Areas. The Subarea Plans for Planning Area 3 identify 100 acres of parkland in that planning area alone (the distribution of parkland is shown in Table 4.4-3 in Section 4.4, Land Use). Since the Master Area Plans and Subarea Plans have not been processed for Planning Areas 5 and 8, the amount of parkland in these locations is not currently known. Nonetheless, given the requirements of LPIP and the current Master and Subarea Plans for Planning Areas 1, 2, 3 and 4, the community in which the Project will be located will be "parks rich".

Since the Project would be constructed in conjunction with the Ranch Plan, the parkland would be constructed in the same timeframe as the Affordable Housing units. Though the Project would increase the population in the area, there would be sufficient local parkland in the Ranch Plan to support the population. As discussed in Section 4.6, Population and Housing, Scenario 1 is projected to increase the population of the area by 1,023 residents; Scenario 2 would result in 1,3643 new residents; and Scenario 3 would generate 2,047 new residents. Based on the County's Local Park Code, there would be a need for 2.56 acres, 3.41 acres, or 5.11 acres of parkland for Scenarios 1, 2, and 3, respectively.

With Scenario 3, which would produce the most Project residents, the parkland requirement for the entire Ranch Plan would be 101.11 acres of parkland (i.e., the 96 acres required by the Ranch Plan LPIP and the 5.11 acres required to support the Affordable Housing units). At this time, approximately 35 acres of parkland have been built or are planned for Planning Areas 1 and 2, and Master Area Plan and Subarea Plans for Planning Area 3 identify an additional 100 acres of parkland. Therefore, the need for parkland to serve the additional population associated with the Project is sufficiently covered by the planned recreational facilities in the Ranch Plan. In addition to the public parkland, the Subarea Plans identify within the residential acreage areas to be used for private recreational uses, including, but not limited to, clubhouses, swimming pools, sports fields, sports courts, and tot lots,. The community-wide recreational facilities open to the Ranch Plan residents would also be open to the residents of the Affordable Housing sites. Given the "parks rich" character of the community, the Project (all development scenarios) would not result in an increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

With regards to the regional recreational facilities, the purpose of the County's regional parks is to serve not just local residents, but visitors from throughout the County. The Fiscal Year 2013–2014 Orange County Parks Annual Report states that the County's regional parks received approximately 13 million visitors during that timeframe. As such, the population increase resulting from any of the Project's three scenarios would have a minimal effect on the County's regional parks because of the limited population that would be generated by the Project and the intended regional nature of the facilities (i.e., intended to serve all of Orange County). Additionally, with approximately 22 percent of the regional recreational facilities designed to service the entire County, it is not anticipated that the Project would result in the over use of these regional facilities such that a substantial physical deterioration of the facilities would occur or be accelerated.

Impact Conclusion: *The Project, Scenario 1, Scenario 2 and Scenario 3, would result in additional population using the parkland facilities but based on the amount of acreage to be provided as part of the Ranch Plan, the County Local Park Code requirement of 2.5 acres per 1000 residents would be met or exceeded, and thus, the Project population would not result in or accelerate a substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities. Impacts would less than significant pursuant to Threshold 4.8-1.*

No Project Alternative

Under the No Project Alternative, there would be no additional housing or its accompanying population increase. Therefore, this alternative would not place any additional demand on park facilities that would cause or accelerate deterioration.

Impact Conclusion: *With the No Project Alternative, there would be no increased usage of existing neighborhood and regional parks or other recreational facilities because this alternative does not result in an increase in population. Pursuant to Threshold 4.8-1 there would be no impact.*

Threshold 4.8-2

Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

All Project Development Scenarios

The Project, under any of the development scenarios, does not propose to construct recreational facilities, outside of the potential for each individual Affordable Housing development to include private recreational amenities for use by its specific residents (i.e., a pool and clubhouse internal to the apartment complex). These improvements would be constructed concurrently with the development and would not result in additional adverse effects on the environment. Further, as indicated above, sufficient parkland to meet the need of the population resulting from the Project would be provided as part of the larger Ranch Plan, and thus, the Project would not require the construction or expansion of recreational facilities to serve its residents. Impacts associated with the development of recreational facilities that are part of the Ranch Plan have been previously identified and evaluated as part of FEIR 589.

Impact Conclusion: *None of the Project development scenarios include the construction or expansion of recreational facilities beyond the possible inclusion of a pool and clubhouse associated with the specific apartment complex. Furthermore, the Project would not require construction or expansion of recreational facilities beyond those already planned for the Ranch Plan. As such, the Project would not result in physical impacts associated with the construction or expansion of such facilities. Therefore, there would be no impact on the environment associated with the provision recreational facilities pursuant to Threshold 4.8-2.*

No Project Alternative

Under the No Project Alternative, no new or expanded recreational facilities would be provided. Therefore, there would be no facilities that require expansion; therefore, there would be no impact.

Impact Conclusion: *The No Project Alternative would not include the construction of recreational facilities or expanded recreational facilities. Therefore, there would be no impact on the environment associated with the provision recreational facilities pursuant to Threshold 4.8-2.*

4.8.6 CUMULATIVE IMPACTS

The Project together with other projects in the area would result in increased demand for recreational uses due to the increase in population. In addition, the proposed Project combined with other projects would likely result in increased use of local and regional recreational amenities. As discussed above, however, the parkland planned for the Ranch Plan exceeds the amount of parkland that would be required under the County Local Park Code, for the combined number of Ranch Plan and Project-generated residents.

Projects associated with the cumulative growth in the region would be required to either include recreational facilities and amenities for use by future residents or would meet their fair share requirement by paying in lieu fees. This requirement, which is codified as part of the Local Park Code, has been established to minimize the potential for substantial physical deterioration of recreational facilities by increasing the amount of parkland in relationship to the additional cumulative population. Because each project is required to meet the standard established by the Local Park Code, there would be sufficient parkland available to serve the population and the cumulative physical deterioration on local park facilities would be less than significant.

The County Local Park Code does not specify a requirement for regional parks. As indicated in the Recreation Element of the General Plan, rather than a regional park acreage standard, the intent of the Master Plan of Regional Facilities "is to provide a countywide regional recreation network of sufficient size, with facilities in dispersed locations and recreation amenities to meet the major recreation needs of present and future residents of Orange County." Orange County has developed an extensive regional park network, which is designed to meet the recreational needs of the population of Orange County. As previously indicated, approximately 10 percent of the land in Orange County is dedicated to parks, nature preserves, beaches, historic parks, and harbors. However, as the population of Orange County increases there will be greater demand on the regional park system, which could lead to physical deterioration. As indicated in the Recreation Element, the operation and maintenance of the regional network is primarily funded by the taxpayers, augmented by user fees, special funding programs, and gifts. With the cumulative population increase associated with new development there would also be an increase in the tax base from the increased land value (i.e., the increase would be from the increased assessment based on the new development), which would generate additional revenue for the operation and maintenance of the regional facilities.

As new developments are evaluated, the impact associated with the construction of new parkland is generally addressed in conjunction with the development approval. All new parkland facilities in the Ranch Plan will occur in the development areas, the impacts of which were evaluate in FEIR 589. The Project does not propose construction of new parkland. Therefore, it would not contribute to a cumulative impact pursuant to this threshold.

4.8.7 MITIGATION PROGRAM

No significant impacts are identified for recreation for any of the Project development scenarios; therefore, no mitigation measures are required.

4.8.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant for all the Project development scenarios and the No Project Alternative.

4.8.9 REFERENCES

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4.9 TRANSPORTATION/TRAFFIC

This section discusses Project-related impacts associated with transportation and circulation, specifically with respect to vehicular traffic impacts on the roadway circulation system surrounding the Project site. The potential impacts of the Project were evaluated in detail in the *Orange County Affordable Housing Implementation Program Traffic Study* (Traffic Study) prepared by Stantec on January 29, 2016. The findings of this technical report are summarized in this section. The technical report is provided as Appendix E of this EIR.

4.9.1 REGULATORY SETTING

Regional

Orange County Congestion Management Program

The Orange County Congestion Management Program (CMP) was originally adopted in 1991 and updated most recently in November 2015. The goals of the Orange County CMP are to support regional mobility and air quality objectives by reducing traffic congestion; to provide a mechanism for coordinating land use and development decisions that support the regional economy; and to determine gas tax fund eligibility. To meet these goals, the CMP contains a number of policies designed to monitor and address system performance issues. The Orange County Transportation Authority (OCTA) was designated as the Congestion Management Agency (CMA) for the County. As a result, the OCTA is responsible for developing, monitoring, and updating (biennially) Orange County's CMP.

A key element of the CMP's current Land Use Analysis Program is the preparation by local jurisdictions of a Traffic Impact Analysis. The Traffic Impact Analysis reports are designed to provide an improved basis for assessing the impacts of land use decisions on the regional transportation system, both within and outside the permitting jurisdiction; by providing a consistent format to identify impacts and mitigations; and by evaluating mitigation costs. A CMP Traffic Impact Analysis has additional requirements and evaluations compared to a typical traffic study. A Traffic Impact Analysis report helps to determine appropriate mitigation measures and financial responsibilities for resolution of the ongoing CMP system impacts and for developing appropriate mitigations for future development projects.

General Plan Policies

The General Plans for the local jurisdictions contain policies on providing a balanced land use and transportation network. Many of these General Plans outline level of service standards. Where applicable these standards have been incorporated into the thresholds of significance for determining whether the Project would result in a significant impact. The goals and policies applicable to the Project from the General Plan for the County of Orange have been addressed in Section 4.4, Land Use and Planning.

4.9.2 METHODOLOGY

The Transportation Impact Analysis analyzes potential Project impacts utilizing Alternative Baseline conditions and Long-Range (Year 2035) Cumulative Conditions both with and without the extension of the State Route (SR) 241 toll road south of Oso Parkway in Year 2035. The Alternative Baseline conditions assumes existing conditions, plus buildout of the Ranch Plan, including the land uses and roadway infrastructure on the Ranch Plan site, as well as South County Roadway Improvement Program (SCRIP) improvements that are currently under construction (see Section 3.4.4 for a discussion of the Alternative CEQA baseline).[1]

The Long-Range (Year 2035) Cumulative Conditions analysis assumes buildout of the Ranch Plan, as well as the long-range land use growth projections from the General Plans of the cities of Mission Viejo, San Juan Capistrano and San Clemente and Orange County Projections 2010 Modified (OCP 2010M) year 2035 growth projections for the surrounding areas in south Orange County.[2] This setting also includes local and regional circulation system improvements that are planned by 2035; for example, through the capital improvement programs of the local municipalities and the County of Orange and countywide programs such as Orange County Measure M2. The Year 2035 scenario does not assume full buildout of the Orange County Master Plan of Arterial Highways (MPAH) circulation plan in south Orange County because a number of facilities shown on that plan are neither planned nor funded by 2035. For the Long-Range (Year 2035) Cumulative Conditions setting, traffic conditions were analyzed both with and without an extension of the SR-241 toll road between Oso Parkway and Interstate (I) 5.

For the Alternative Baseline and each of the Long-Range (Year 2035) Cumulative Conditions settings (with and without the SR-241 extension), the following Affordable Housing scenarios are analyzed:

- With Project Scenario 1 (555 Affordable Housing Units)
- With Project Scenario 2 (740 Affordable Units)
- With Project Scenario 3 (1,110 Affordable Units)
- No Project

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1 The SCRIP Fee Program is a comprehensive action plan to ensure the timely phasing and financing of the highway improvements and intersection improvements in the vicinity of the Project. The SCRIP Program has been prepared pursuant to Government Code Section 66484.3 and the Orange County Codified Ordinance Section 7-9-316 to finance construction of the highway gaps, intersection improvements, and traffic signals. The "area of benefit" would, at a minimum, include the Ranch Plan Planned Community area and off-site highway links and intersections affected by the Ranch Plan project.

2 Though the OCP-2014 dataset has been adopted by the Orange County Council of Governments, the traffic model still relies on OCP-2010 Modified (OCP-2010M). The OCP dataset gets approved sufficiently before the preparation of the regional planning program updates to enable the regional agencies (Southern California Association of Governments [SCAG] and the South Coast Air Quality Management District) to incorporate the data into the regional planning programs. However, the traffic modeling is not updated with the new socioeconomic data until after SCAG approves the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). This ensures the traffic model is consistent with the currently adopted regional planning programs. SCAG approved the 2016-2040 RTP/SCS on April 7, 2016. Therefore, OCTA, which maintains the Orange County Transportation Analysis Model (OCTAM), which is the basis for the sub-area model used for this analysis, anticipates the OCP-2014 data will be incorporated into OCTAM by summer 2016. A comparison of the datasets for Regional Statistical Area C-43, which includes the Project site indicate the OCP-2010M and the OCP-2014 datasets are very similar. OCP-2014 does show an increase in 1,136 units in 2035 when compared to the OCP-2010 Modified dataset. This projected growth accommodates the Project.

In the No Project Scenario, none of the affordable housing dwelling units proposed in Planning Areas 3 through 8 are assumed on the Ranch Plan site, whereas the three With Project scenarios assume the number of affordable housing units described in Section 3.0, Project Description.

Traffic forecasts for the study were prepared using the South County Sub-Area Model, Version 3.4 (SCSAM 3.4) in combination with recent traffic projections prepared for the cities of Mission Viejo, San Juan Capistrano, and San Clemente. The SCSAM 3.4 traffic model is derived from the Orange County Transportation Analysis Model, Version 3.4 (OCTAM 3.4), which is maintained by the OCTA and has been developed according to OCTA's Orange County sub-area traffic modeling guidelines. The OCTA has certified the SCSAM traffic model as being consistent with the OCTAM regional model.

Performance Criteria

As part of this analysis, a set of performance criteria is used to identify future level of service (LOS) deficiencies on the study area circulation system. Traffic LOS is designated "A" through "F" with LOS A representing free flow conditions and LOS F representing severe traffic congestion. General LOS descriptions for urban streets, intersections, and freeways are summarized in Appendix E. Table 4.9-1, Volume/Capacity Ratio Level of Service Ranges, summarizes the volume/capacity (V/C) ranges that correspond to LOS A through F for arterial roads and freeway segments. The V/C ranges listed for arterial roads are designated in the Orange County CMP and in the General Plans for the County of Orange and the Cities of Mission Viejo, San Juan Capistrano, and San Clemente. The V/C ranges listed for freeway segments are based on the V/C and LOS relationships specified in the 2010 Highway Capacity Manual (HCM 2010) for basic freeway sections.

TABLE 4.9-1
VOLUME/CAPACITY RATIO LEVEL OF SERVICE RANGES

Level of Service (LOS)	Volume/Capacity (V/C) Ratio Ranges	
	Arterial Roads	Freeway Segments
A	0.00 – 0.60	0.00 – 0.30
B	0.61 – 0.70	0.31 – 0.50
C	0.71 – 0.80	0.51 – 0.71
D	0.81 – 0.90	0.72 – 0.89
E	0.91 – 1.00	0.90 – 1.00
F	Above 1.00	Above 1.00

LOS: level of service; V/C: volume/capacity ratio
Source: Stantec 2016

The performance criteria applied in the traffic study include components for intersections, freeway/toll road ramps, and freeway/toll road mainline segments; and these criteria are based on LOS calculation methodologies and performance standards used by the governing agencies in the study area as well as by the OCTA as part of the CMP.

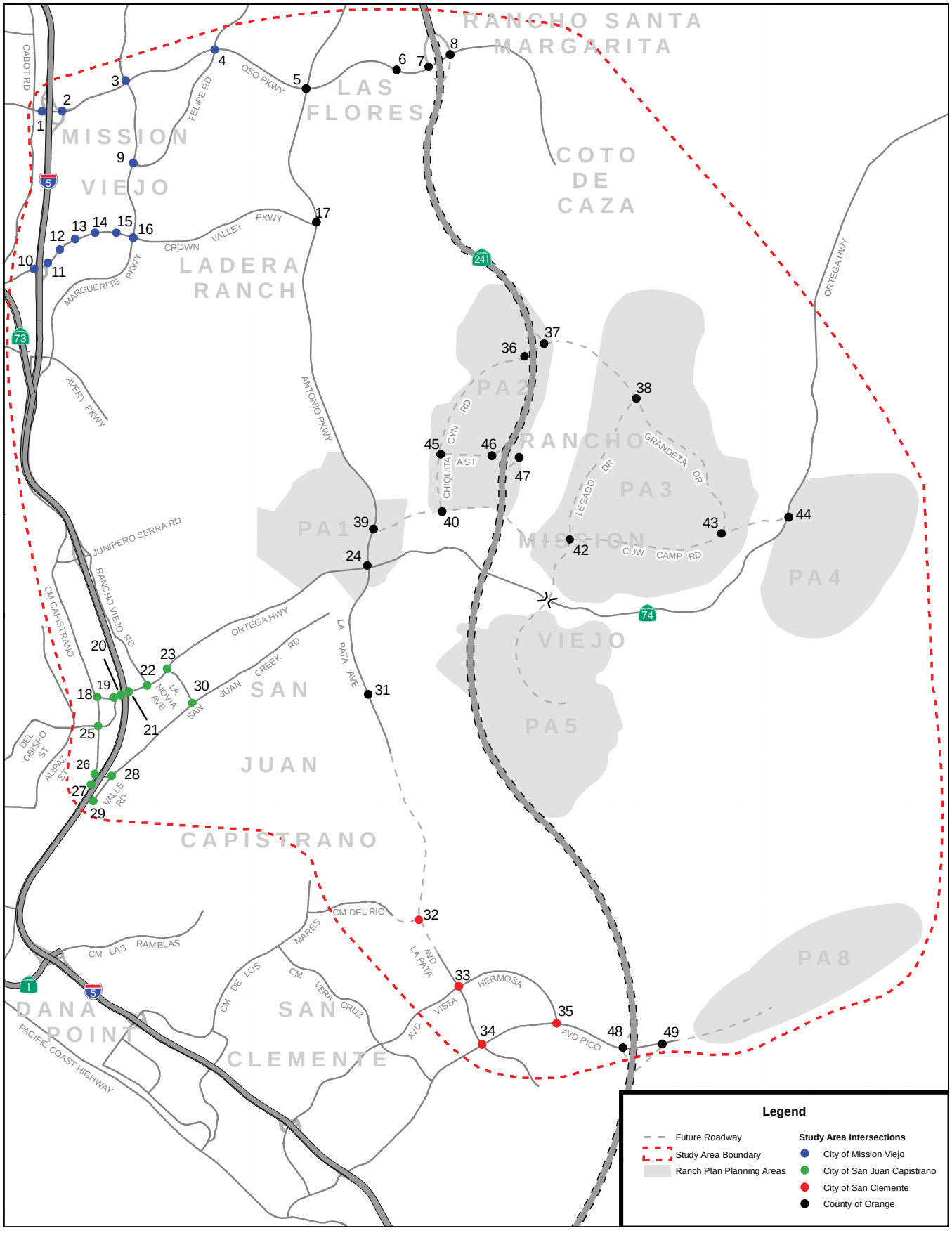
Intersections

The intersection criteria involve the use of peak hour intersection capacity utilization (ICU) values. The ICU calculation methodology and associated impact criteria for intersections in the study area are shown in Table 4.9-2, Intersection Performance Criteria. The ICU ranges that correspond to LOS "A" through "F" are shown in Table 4.9-3, Intersection Level of Service Ranges (ICU and HCM Delay), and are the same as the V/C ranges for arterial roads. By practice, the ICU methodology assumes that intersections are signalized. LOS E (ICU not to exceed 1.00) is the performance standard applied in the traffic study for the following intersections: the I-5 ramp intersections at Crown Valley and at Ortega Highway[3], which are CMP intersections; the Crown Valley Parkway intersections between I-5 and Marguerite Parkway (which have been designated LOS E intersections in the Mission Viejo General Plan); and the Del Obispo Street/Ortega Highway, Camino Capistrano/Del Obispo Street, Camino Capistrano/San Juan Creek Road and Camino Capistrano/I-5 southbound ramp intersections (which have been designated in the City of San Juan Capistrano General Plan as hot spot locations where LOS E is considered satisfactory). LOS D (ICU not to exceed .90) is the performance standard for the remaining intersections in the study area. The intersection locations that were analyzed are depicted in Exhibit 4.9-1.[4]

The City of San Juan Capistrano uses the HCM LOS methodology for signalized intersections in addition to the ICU methodology, and the California Department of Transportation (Caltrans) uses the HCM LOS methodology for evaluating intersections on the State highway system. Therefore, the San Juan Capistrano and Caltrans intersections in the study area are analyzed using the HCM 2010 LOS methodology in addition to the ICU methodology. In the HCM 2010 signalized intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. The vehicle delay ranges that correspond to LOS A through F as specified in the HCM are also summarized in Table 4.9-3.

[3] Ortega Highway is SR-74; however, in this EIR it is referenced as Ortega Highway, which is how it is known locally.

[4] Exhibit 4.9-1 depicts the intersections evaluated in any of the scenarios; however, each of these intersections are not evaluated in all of the scenarios. For example, for the Long-Range (Year 2035) with the extension of SR-241 there are intersections that would not be in place for the Alternative Baseline or the Long-Range without the SR-241 extension.



Source: Stantec 2015

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Intersection Location Map

Exhibit 4.9-1

Orange County Affordable Housing Implementation Plan Program EIR

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TABLE 4.9-2
INTERSECTION PERFORMANCE CRITERIA

V/C Calculation Methodology

LOS based on peak hour ICU values calculated using the following assumptions:

Saturation Flow Rate:
1,600 vehicles per hour per lane for City of San Clemente
1,700 vehicles per hour per lane for all other jurisdictions in the study area.

Clearance Interval:
0.00 for City of San Clemente intersections
0.05 for all other jurisdictions in the study area.

Performance Standards

LOS E (peak hour ICU less than or equal to 1.00) for CMP intersections (i.e., the I-5 ramp intersections at Crown Valley Parkway and at Ortega Highway); the Crown Valley Parkway intersections between I-5 and Marguerite Parkway in the City of Mission Viejo and the Del Obispo Street/Ortega Highway; Camino Capistrano/Del Obispo Street; Camino Capistrano/San Juan Creek Road; and Camino Capistrano/I-5 southbound ramp intersections in the City of San Juan Capistrano.

LOS D (peak hour ICU less than or equal to 0.90) for all other intersections in the traffic analysis study area.

Impact Thresholds

An intersection is considered to be impacted by the Project if:

A. The intersection is forecasted to operate deficiently (i.e., worse than the performance standard).

AND

B. Compared to the ICU for No Project conditions, the ICU for With Project conditions increases as follows:

- 0.01 or greater at County of Orange, City of Mission Viejo, City of Rancho Santa Margarita, and City of San Juan Capistrano intersections.
- Greater than 0.01 at City of San Clemente intersections.
- Greater than 0.03 at CMP intersections.

HCM Methodology

For San Juan Capistrano and Caltrans intersections, the HCM 2010 LOS methodology for signalized intersections is applied in addition to the ICU methodology.

V/C: volume/capacity ratio; LOS: level of service; ICU: intersection capacity utilization; CMP: Congestion Management Program; I: Interstate; HCM 2010: 2010 Highway Capacity Manual; Caltrans: California Department of Transportation

Source: Stantec 2016

TABLE 4.9-3
INTERSECTION LEVEL OF SERVICE RANGES (INTERSECTION CAPACITY UTILIZATION AND HIGHWAY CAPACITY MANUAL DELAY)

LOS	ICU	HCM Average Delay (seconds)
A	0.00–0.60	0.00–10.0
B	0.61–0.70	10.1–20.0
C	0.71–0.80	20.1–35.0
D	0.81–0.90	35.1–55.0
E	0.91–1.00	55.1–80.0
F	Above 1.00	Above 80.0
LOS: level of service; ICU: intersection capacity utilization; HCM: Highway Capacity Manual Source: Stantec 2016		

Freeway/Toll Road Ramp Segments

Similar to the intersection evaluation, the peak hour is the time period generally used by Caltrans for impact evaluation of freeway/toll road interchange ramps. Accordingly, in the traffic study, levels of service for freeway/toll road ramps are based on AM and PM peak hour V/C ratios. The limits of the traffic analysis study area were reviewed during the course of the traffic study to ensure that the traffic study analyzed all freeway/toll road ramps on the State highway system where the Project adds over 100 peak hour trips to a ramp that is not experiencing noticeable delays or where the Project adds 50 to 100 peak hour trips to a ramp that is experiencing noticeable delays.[5]

Peak hour capacities for the various ramp configurations that either exist or are anticipated on the freeway/toll road system in the traffic analysis study area are based on information in the Caltrans Highway Design Manual and the Caltrans Ramp Meter Design Manual and have been used for other recent studies in Orange County. The capacities for calculating ramp V/C ratios are summarized in Table 4.9-4 together with the overall performance criteria and impact thresholds for freeway/toll road ramps in the study area. LOS E (V/C not to exceed 1.00) has been established by Caltrans as the operating standard for freeway/toll road ramps. This standard is also consistent with the LOS E standard specified in the Orange County CMP for CMP facilities (the freeway/toll road system in the study area is included in the CMP network).

[5] Caltrans does not have a specific definition of "noticeable delay"; however, the traffic study area limits extend well beyond the points where The Affordable Housing Project adds 50 or more trips to the State Highway system. For example, none of the Affordable Housing Project Development Alternatives adds 50 peak hour trips or more to any of the freeway/toll road ramps or mainline segments within the study area.

TABLE 4.9-4
FREEWAY/TOLL ROAD RAMP PERFORMANCE CRITERIA

V/C Calculation Methodology

LOS based on peak hour V/C ratios calculated using the following capacities:

Metered On-Ramps

A maximum capacity of 900 vph for a 1-lane metered on-ramp with only 1 mixed-flow lane at the meter.

A maximum capacity of 1,080 vph (20% greater than 900) for a 1-lane metered on-ramp with 1 mixed-flow lane at the meter plus 1 HOV preferential lane at the meter.

A maximum capacity of 1,500 vph for a 1-lane metered on-ramp with 2 mixed-flow lanes at the meter.

A maximum capacity of 1,800 vph for a 2-lane metered on-ramp with 2 mixed-flow lanes at the meter.

Non-Metered On-Ramps and Off-Ramps

A maximum capacity of 1,500 vph for a 1-lane ramp.

A maximum capacity of 2,250 vph (50% greater than 1,500) for a 2-lane on-ramp that tapers to 1 merge lane at or beyond the freeway mainline gore point and for a 2-lane off-ramp with only 1 auxiliary lane.

A maximum capacity of 3,000 vph for a 2-lane on-ramp that does not taper to 1 merge lane and for a 2-lane off-ramp with 2 auxiliary lanes.

Performance Standard

LOS E (peak hour V/C less than or equal to 1.00)

Impact Thresholds

A freeway/toll road ramp is considered to be impacted by the Project if:

A. The ramp is forecasted to operate deficiently (i.e., worse than the performance standard).

AND

B. Compared to the ramp V/C for No Project conditions, the ramp V/C for With Project conditions increases as follows:

- 0.01 or greater for ramps at freeway/toll road interchanges in the City of Mission Viejo, City of Rancho Santa Margarita, and City of San Juan Capistrano.

Queue Analysis

In addition to the V/C analysis, a ramp queue analysis based on the HCM 2010 is applied for any freeway/toll road on-ramp or off-ramp where the Project adds 50 or more trips based on a comparison of No Project versus With Project traffic volumes.

V/C: volume/capacity ratio; LOS: level of service; vph: vehicles per hour; HOV: high-occupancy vehicle; HCM 2010: 2010 Highway Capacity Manual

Source: Stantec 2016

In addition to the ramp V/C analysis, a ramp queue analysis is carried out for any freeway/toll road on-ramp or off-ramp where the Affordable Housing Project adds 50 or more trips based on a comparison of No Project versus With Project traffic volumes. The purpose of the queue analysis is to identify whether the With Project traffic volumes on the ramps result in any traffic

queues that exceed storage capacities or, in the case of metered on-ramps, to identify the delay to motorists using the on-ramps and the storage necessary to accommodate the queuing at the ramp meter.

Freeway/Toll Road Mainline Segments

The impact analysis for freeway/toll road mainline segments is based on peak hour volumes by direction. Capacities for calculating peak hour V/C ratios for freeway/toll road mainline segments are based on information contained in the Caltrans Highway Design Manual and have been verified by Caltrans staff in previous Orange County studies. The capacity assumptions for freeway/toll road mixed-flow and high occupancy vehicle (HOV) lanes are summarized in Table 4.9-3 together with the overall performance criteria and impact thresholds for freeway/toll road mainline segments in the study area. The LOS E (V/C not to exceed 1.00) performance standard has been established by Caltrans as the operating standard for freeway/toll road mainline segments and is also consistent with the LOS E standard specified in the Orange County CMP for CMP facilities (the freeway/toll road system in the study area is included in the CMP roadway network). Table 4.9-5 provides the Project impact criteria for the freeway/toll road mainline segments.

TABLE 4.9-5
FREEWAY/TOLL ROAD MAINLINE PERFORMANCE CRITERIA

V/C Calculation Methodology

LOS based on peak hour V/C ratios calculated using the following capacities:

2,000 vphpl for mixed-flow (general purpose) lanes.

1,600 vphpl for a 1-lane buffer-separated HOV facility.

1,750 vphpl for a 2-lane buffer-separated HOV facility.

Performance Standard

LOS E (peak hour V/C less than or equal to 1.00)

Impact Thresholds

A freeway/toll road mainline segment is considered to be impacted by the Project if:

A. The mainline segment is forecasted to operate deficiently (i.e., worse than the performance standard).

AND

B. Compared to the mainline segment V/C for No Project conditions, the ramp V/C for With Project conditions increases as follows:

- Greater than 0.03 (the impact threshold specified in the Orange County CMP).

V/C: volume/capacity; LOS: level of service; vphpl: vehicles per hour per lane; HOV: high occupancy vehicle; CMP: Congestion Management Program

Source: Stantec 2016

The limits of the traffic analysis study area were reviewed during the course of the study to ensure that the traffic study analyzes all freeway/toll road mainline segments on the State

highway system where the Project adds over 100 peak hour trips in 1 direction to a mainline segment that is not experiencing noticeable delays or where the Project adds 50 to 100 peak hour trips in 1 direction to a mainline segment that is experiencing noticeable delays.

Proposed Trip Generation

The potential traffic impacts of the Affordable Housing Project are analyzed based on traffic forecasts that include buildout of the Ranch Plan Planned Community as part of the baseline conditions. The reason for this approach is because the affordable housing that would be developed as a result of the Project is in addition to the developed approved for the Ranch Plan and could not be implemented until the associated portions of the Ranch Plan Planned Community is developed. The affordable housing units in Planning Areas 3 through 8 are assumed to be comprised of 75 percent all-age (family) residences and 25 percent age-qualified residences. Trip generation numbers for each of the Project development scenarios are detailed in Appendix E and are summarized below as average daily traffic (ADT)[6]:

Scenario 1: 4,353 ADT

Scenario 2: 5,435 ADT

Scenario 3: 7,600 ADT

Project Trip Distribution

Trip distribution patterns for the Affordable Housing Project's land uses were determined based on the SCSAM 3.4, which applied, the trip distribution patterns from the Orange County Transportation Analysis Model (OCTAM 3.4). The trip distribution patterns for the Affordable Housing Project are based on traffic conditions that assume full development of the Ranch Plan Planned Community, including the land uses and roadway infrastructure on the Ranch Plan Planned Community site as well as SCRIP improvements that are planned. Approximately 40 percent of the traffic generated by the Affordable Housing Project is forecasted to travel within the Ranch Plan Planned Community site, and the remaining 60 percent of Project-generated traffic is forecasted to travel beyond the Ranch Plan Planned Community site. This internal versus external trip distribution pattern, which is incorporated into the traffic model (SCSAM,) is consistent with the internal/external relationship assumed in the 2004 EIR traffic study for the Ranch Plan Planned Community as well as subsequent traffic studies for the Ranch Plan Planned Community site, including the Area Plan studies for Ranch Plan Planning Areas 1, 2, 3 and 4. It should be noted, that by 2035, the cumulative horizon year addressed in the traffic analysis, build-out of the Ranch Plan and all Affordable Housing units are assumed.

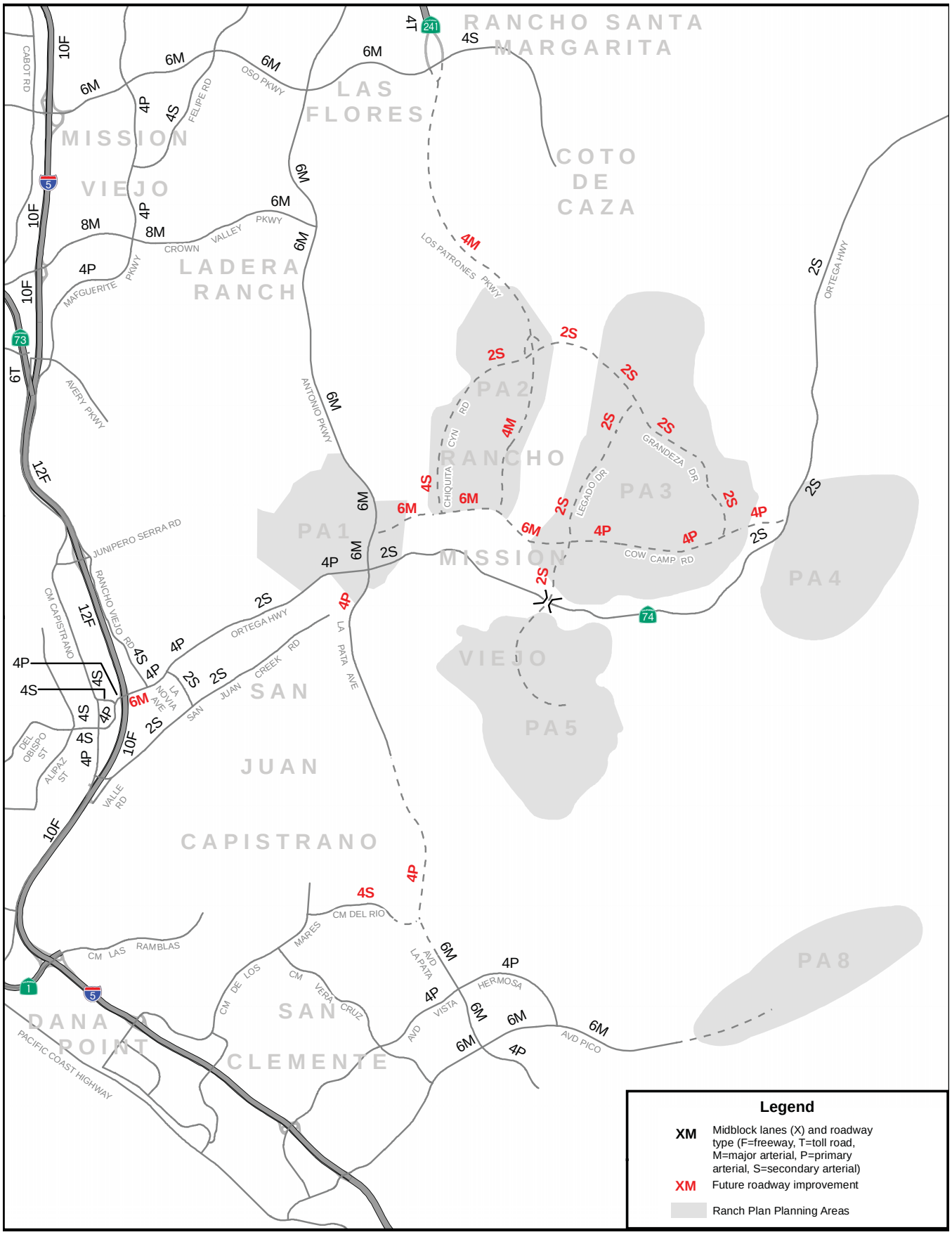
[6] As discussed previously, the traffic model is based on the OCP-2010M dataset, which does not incorporate trips from the AHIA development. Therefore, the trip generation for each of the alternatives is inclusive of the trip generation associated with the full implementation of the AHIA, which includes 107 age-qualified units in Planning Area 1.4 and 112 all-age units in Planning Area 2.1, Though these two affordable housing developments have already been approved and separate traffic impact analyses were prepared for each of these projects, the trips associated with these two developments need to be incorporated into the model to ensure the traffic analysis provides a full cumulative evaluation of the traffic conditions.

Planned Circulation System

Table 4.9-6 lists the roadway improvements assumed in the Alternative Baseline setting and the Long-Range (Year 2035) Cumulative Conditions settings (with and without the extension of the SR-241 toll road). Included in the table are the projected completion dates for each of the improvements. Additionally, the internal roadway network for the Ranch Plan is assumed to be completed. The on-site Ranch Plan circulation network includes Cow Camp Road, Chiquita Canyon Drive, Legado Drive, and Grandeza Drive. Exhibits 4.9-2 through 4.9-4 illustrate the planned circulation system assumed in the traffic analysis study area for Alternative Baseline setting; Long-Range (Year 2035) Cumulative Conditions Without the Extension of the SR-241 Toll Road; and Long-Range (Year 2035) Cumulative Conditions With the Extension of the SR-241 Toll Road, respectively.

On the Orange County Master Plan of Arterial Highways (MPAH), Grandeza Drive between Los Patrones Parkway and Cow Camp Road is designated as a four-lane secondary arterial and Cow Camp Road between Grandeza Drive and Ortega Highway is designated as a four-lane primary arterial. Current design of these two roadways includes the option to construct the segment of Grandeza Drive across Gobernadora Canyon (i.e., between Los Patrones Parkway and Legado Drive) and the segment of Cow Camp Road across San Juan Creek (i.e., between Grandeza Drive and Ortega Highway) as two-lane roadways although the MPAH has not yet been amended to designate these segments as two-lane roadways.

All of the scenarios assume completion of the reconstruction of the I-5/Ortega Highway interchange, which was completed in late 2015 and the extension of La Pata Avenue, which is currently under construction. The completion of Los Patrones Parkway is assumed in the Alternative Baseline scenario and the Long-Range (Year 2035) Cumulative Conditions Without the SR-241 extension scenario. As discussed in Section 2.6.3, Los Patrones Parkway is approved as a rural secondary highway and construction is expected to start in 2016. Los Patrones Parkway will extend south from Oso Parkway from the current terminus of the SR-241 to Cow Camp Road. Two configurations of the Oso Parkway intersection at SR-241/Los Patrones Parkway are analyzed in this study. In one configuration the SR-241 toll road terminates at Oso Parkway and Los Patrones Parkway originates at Oso Parkway with no direct connection between the SR-241 mainline travel lanes and Los Patrones Parkway. The other configuration analyzes construction of a bridge at Oso Parkway and a roadway (approximately 1.1 miles in length), which would connect the SR-241 mainline to Los Patrones Parkway. as indicated above, the long range circulation network depicted in the MPAH and regional planning documents reflect a full extension of SR-241 to I-5. Thus, in the interest of informed decision-making, this EIR also includes a Long-Range (Year 2035) Cumulative Conditions scenario that evaluates the extension of SR-241 to I-5.



Source: Stantec 2015

Alternative Baseline Circulation System

Exhibit 4.9-2

Orange County Affordable Housing Implementation Plan Program EIR

BonTerra PSOMAS

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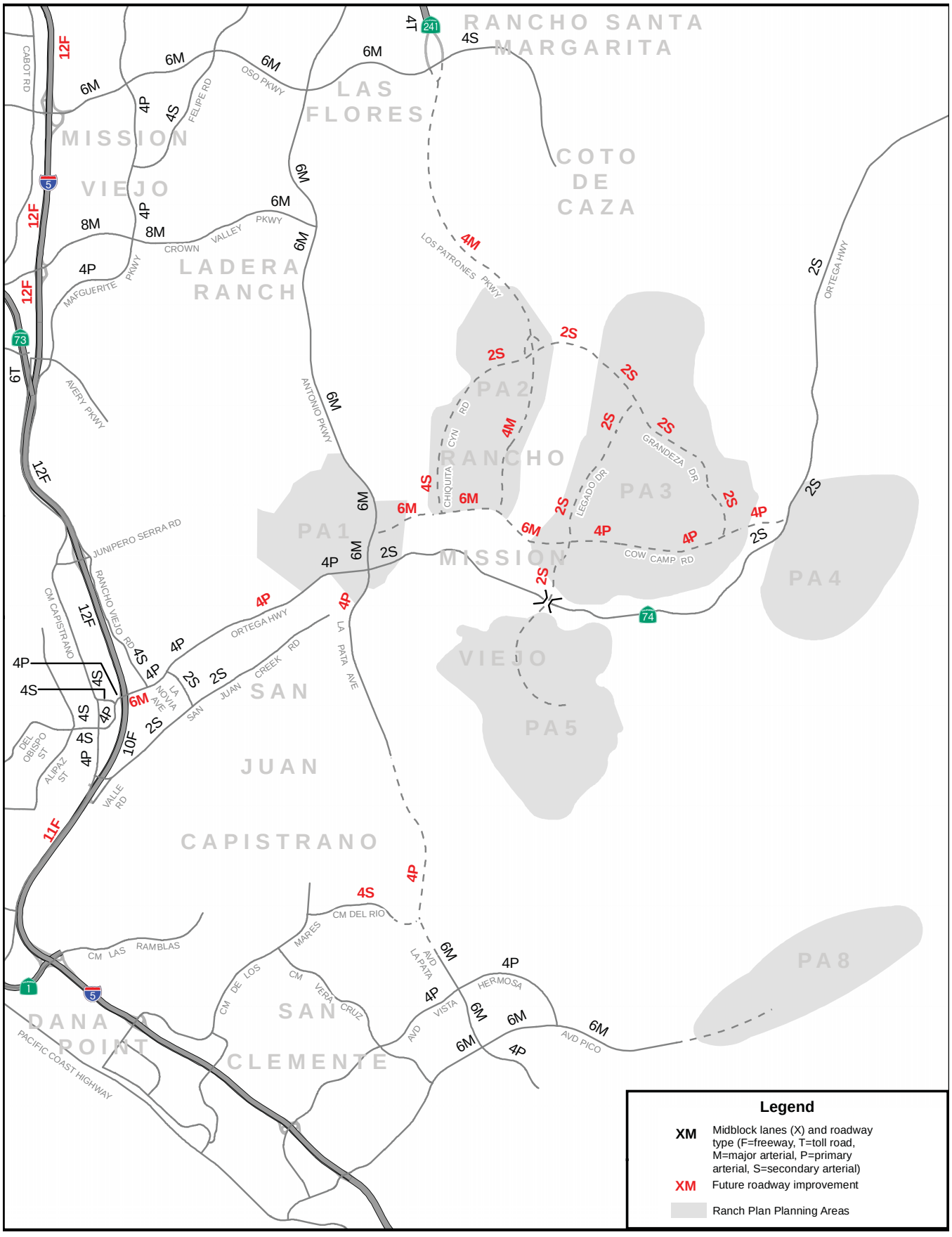

Source: Stantec 2015

2035 Circulation System Without SR-241 Extension

Exhibit 4.9-3

Orange County Affordable Housing Implementation Plan Program EIR

Bonterra PSOMAS

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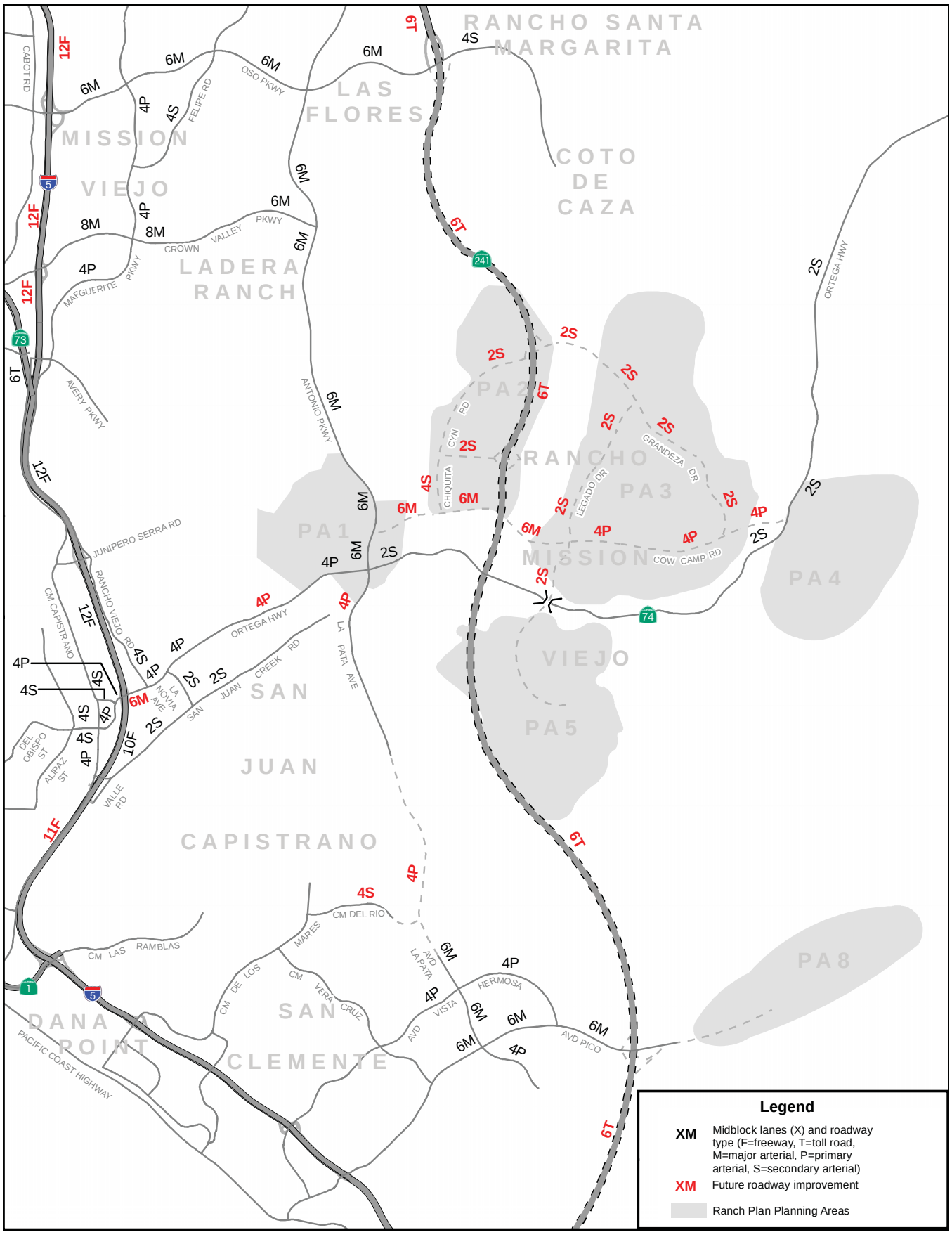

Source: Stantec 2015

2035 Circulation System With SR-241 Extension

Exhibit 4.9-4

Orange County Affordable Housing Implementation Plan Program EIR

BonTerra PSOMAS

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TABLE 4.9-6
BACKGROUND CIRCULATION SYSTEM IMPROVEMENTS

Location	Improvements	Status	Traffic Analysis Scenario	Projected Completion
County of Orange				
Antonio Pkwy/ Crown Valley Pkwy	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
Antonio Pkwy/ Oso Pkwy	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
Chiquita Canyon Rd	New arterial roadway from Cow Camp Rd to Los Patrones Pkwy	Constructed with buildout of the Ranch Plan	Alternative Baseline and 2035 Cumulative	2017
Cow Camp Rd	New arterial roadway from Antonio Pkwy to Los Patrones Pkwy	Constructed with buildout of the Ranch Plan	Alternative Baseline and 2035 Cumulative	2015
Cow Camp Rd	New arterial roadway from Los Patrones Pkwy to Ortega Hwy	Constructed with buildout of the Ranch Plan	Alternative Baseline and 2035 Cumulative	2020
Grandeza Dr	New arterial roadway from Los Patrones Pkwy to Cow Camp Rd	Constructed with buildout of the Ranch Plan	Alternative Baseline and 2035 Cumulative	2035
La Pata Ave	Roadway extension to San Clemente (gap closure)	Under construction	Alternative Baseline and 2035 Cumulative	2016
Legado Dr	New arterial from Grandeza Dr to south of Ortega Hwy (Ranch Plan Planning Area 5 access)	Constructed with buildout of the Ranch Plan	Alternative Baseline and 2035 Cumulative	2035
Los Patrones Pkwy	New arterial roadway from Oso Pkwy to Cow Camp Rd*	Constructed with buildout of the Ranch Plan	Alternative Baseline and 2035 Cumulative Without SR-241 Toll Road Extension	2019
City of Mission Viejo				
Felipe Rd/ Oso Pkwy	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035

TABLE 4.9-6
BACKGROUND CIRCULATION SYSTEM IMPROVEMENTS

Location	Improvements	Status	Traffic Analysis Scenario	Projected Completion
City of San Juan Capistrano				
I-5/Ortega Hwy Interchange	Interchange reconstruction	Under construction	Alternative Baseline and 2035 Cumulative	2015
La Novia Ave/ Ortega Hwy	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
Ortega Hwy	SCRIP context sensitive roadway improvements	Future improvement	2035 Cumulative	2035
Rancho Viejo Rd/ Ortega Hwy	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
OCTA Measure M2 Program				
I-5 Freeway	Mainline improvements from La Paz Rd to SR-73	Under Design	2035 Cumulative	2022
I-5 Freeway	HOV lane construction from San Juan Creek Rd to Avenida Pico	Under Construction	2035 Cumulative	2016
TCA				
SR-241 Toll Road	Extension of the toll road from Oso Pkwy to I-5	Future improvement	2035 Cumulative With SR-241 Toll Road Extension	2035

SCRIP: South County Roadway Improvement Program; I: Interstate; OCTA: Orange County Transportation Authority; SR: State Route; HOV: high occupancy vehicle; TCA: Transportation Corridor Agencies

* Two configurations of the Oso Parkway interchange at SR-241/Los Patrones Pkwy are analyzed in the traffic study. In one configuration the SR-241 toll road terminates at Oso Pkwy and Los Patrones Pkwy originates at Oso Pkwy with no direct connection between the SR-241 mainline travel lanes and Los Patrones Pkwy. The other configuration assumes construction of an Oso Pkwy bridge and a direct connection of the SR-241 mainline to Los Patrones Pkwy.

Source: Stantec 2016

4.9.3 EXISTING AND ALTERNATIVE BASELINE CONDITIONS

For information purposes, the Traffic Study provided information on both the existing circulation system and the alternative baseline network in the study area, including number of lanes on the roadway network; traffic conditions based on observed traffic counts; AM and PM peak hour turn movement counts at intersection locations in the study area; and ADT and peak hour traffic count data for I-5 published by Caltrans for the California State Highway system and the Caltrans Performance Management System (PeMS). Details regarding the circulation system can be found in the Traffic Study in Appendix E with key findings summarized below.

Peak Hour Intersection Levels of Service

Existing AM and PM peak hour ICU values show that each of the intersection locations analyzed in the study area currently operates at an acceptable LOS with the exception of the I-5 northbound ramp intersection at Ortega Highway which operates at LOS F during the AM peak hour. It should be noted, the existing traffic volumes are based on conditions without the construction activities at the I-5/Oso Parkway and I-5/Ortega Highway interchanges that were ongoing in early 2015 (i.e., the levels of service are based on the configuration of the interchanges prior to the construction activity). The construction of the improvements at the I-5/Ortega Highway interchange was completed in late 2015. The circulation system settings applied in the analysis of the Affordable Housing Project's potential traffic impacts assume completion of the improvements that are under construction at the Oso Parkway and Ortega Highway interchanges. To avoid undue repetition, a separate table providing the Alternative Baseline Condition's LOS is not provided in this section. The Alternative Baseline Condition LOS would be the same as the No Project analysis provided in Section 4.9-5, specifically in Tables 4.9-7 and 4.9-8 (see Section 3.4.4 for a discussion of the Alternative Baseline).

Peak Hour Freeway/Toll Road Ramp Levels of Service

Existing AM and PM peak hour ramp volumes were derived from the existing intersection volumes at each location in the study area where freeway/toll road ramps intersect the arterial roadway system. Existing peak hour V/C ratios for freeway/toll road ramps in the study area show that each freeway/toll road ramp in the study area currently operates at an acceptable LOS with the exception of the northbound on-ramp at the I-5/Ortega Highway interchange, which currently operates at LOS F during the AM peak hour. As mentioned previously, the existing traffic volumes applied here are based on the configuration of the I-5/Oso Parkway and I-5/Ortega Highway interchanges prior to the current construction activity at those interchanges, and the improvements that are under construction at the Oso Parkway and Ortega Highway interchanges are assumed to be completed in the analysis of the potential traffic impacts for the Affordable Housing Project.

Peak Hour Freeway/Toll Road Mainline Levels of Service

Existing peak hour V/C ratios and levels of service for freeway/toll road mainline segments show that each of the freeway/toll road mainline segments in the study area currently operates at an acceptable LOS.

4.9.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist, the Project would result in a significant impact to transportation and traffic if it would:

Threshold 4.9-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Threshold 4.9-2 Conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

As discussed in Section 2.3.1, Issues to be Addressed in the Environmental Impact Report, the thresholds pertaining to air traffic operations; design hazards due to incompatible uses (current ranching or industrial operations); emergency access; and conflict with policies pertaining to alternative modes of transportation; were focused out of the EIR at the time the Notice of Preparation was issued.

4.9.5 IMPACT ANALYSIS

Introduction

This section analyzes the traffic impacts of the proposed Project, under each of the Project implementation scenarios set forth in Section 1.0 and 3.0. For each impact discussion, the analysis includes each of the three Project Scenarios, collectively referred to as Project development scenarios, and a No Project Alternative. The potential traffic impacts of the Project were evaluated based on the following three transportation settings:

- Alternative Baseline Plus Project
- Long-Range (Year 2035) Cumulative Conditions Without the SR-241 Toll Road Extension
- Long-Range (Year 2035) Cumulative Conditions With the SR-241 Toll Road Extension

In the No Project scenario, no affordable housing dwelling units are assumed on the designated Affordable Housing sites; however, the sites would be developed with uses approved as part of the Ranch Plan Planned Community. The three Project development scenarios assume the number of Affordable Housing units described earlier in Section 4.9.2, Methodology. These units would be over and above the 14,000 dwelling units approved for the Ranch Plan. The following sections summarize the results of the analysis conducted for the various components of the study area circulation system including arterial roads and intersections, freeway/toll road ramps and freeway/toll road mainline segments.

Threshold 4.9-1

Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

As discussed under Methodology, potential impacts on the performance of the circulation system is evaluated using several different metrics, including evaluation of peak hour intersection LOS, freeway and toll road ramp segments delays, and freeway and toll road mainline segment delays. To minimize repetitiveness and allow an easy comparison of the Project development scenarios (Scenarios 1 through 3) and the No Project Alternative, the data are presented on the same tables for all the alternatives. The tables for each metric (for example Peak Hour Intersection LOS) are presented as part of the discussion for the Project Development Alternatives and then referenced back for the No-Project Alternative. A comparison of the Project development alternatives to the No Project Alternative identifies the increased traffic attributable to the Project development scenario.

All Project Development Scenarios

Peak Hour Intersection Levels of Service

Alternative Baseline Plus Project Development Scenarios

Intersection Capacity Utilization

The AM and PM peak hour ICU values for the Project development scenarios are shown in Table 4.9-7 for the Alternative Baseline setting. All of the intersection locations analyzed in the study area are forecasted to operate at acceptable levels of service for all three Project development scenario. Therefore, based on the Alternative Baseline Plus Project evaluation all impacts associated with peak hour intersection LOS and the three Project development scenarios would be less than significant and no mitigation is required.

Highway Capacity Utilization Methodology

City of San Juan Capistrano and Caltrans intersections were analyzed in the traffic study using the HCM LOS calculation methodology for signalized intersections in addition to the ICU methodology. In the HCM intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. AM and PM peak hour HCM-based intersection levels of service are summarized in Table 4.9-8 for the Alternative Baseline Plus Project. As the summary tables indicate, all of the San Juan Capistrano and Caltrans intersections analyzed in the study area are forecasted to operate at acceptable levels of service for all three Project development scenario. Therefore, based on the Alternative Baseline Plus Project evaluation all impacts associated with peak hour intersection LOS using the HCM methodology and the three Project development scenarios would be less than significant and no mitigation is required.

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
1. I-5 SB Ramps and Oso Pkwy	Mission Viejo	No Project	0.52	A	0.73	C
		Project Scenario 1	0.52	A	0.73	C
		Project Scenario 2	0.52	A	0.73	C
		Project Scenario 3	0.52	A	0.73	C
2. I-5 NB Ramps and Oso Pkwy	Mission Viejo	No Project	0.52	A	0.73	C
		Project Scenario 1	0.52	A	0.73	C
		Project Scenario 2	0.52	A	0.73	C
		Project Scenario 3	0.52	A	0.73	C
3. Marguerite Pkwy and Oso Pkwy	Mission Viejo	No Project	0.79	C	0.74	C
		Project Scenario 1	0.79	C	0.75	C
		Project Scenario 2	0.79	C	0.75	C
		Project Scenario 3	0.80	C	0.75	C
4. Felipe Rd and Oso Pkwy	Mission Viejo	No Project	0.80	C	0.82	D
		Project Scenario 1	0.80	C	0.82	D
		Project Scenario 2	0.81	D	0.82	D
		Project Scenario 3	0.81	D	0.82	D
5. Antonio Pkwy and Oso Pkwy	County	No Project	0.68	B	0.70	B
		Project Scenario 1	0.68	B	0.70	B
		Project Scenario 2	0.69	B	0.70	B
		Project Scenario 3	0.69	B	0.70	B
6. Tesoro Creek Rd and Oso Pkwy	County	No Project	0.73	C	0.52	A
		Project Scenario 1	0.74	C	0.53	A
		Project Scenario 2	0.74	C	0.53	A
		Project Scenario 3	0.74	C	0.53	A

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.57	A	0.58	A
		Project Scenario 1	0.58	A	0.58	A
		Project Scenario 2	0.58	A	0.58	A
		Project Scenario 3	0.58	A	0.58	A
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.70	B	0.75	C
		Project Scenario 1	0.72	C	0.76	C
		Project Scenario 2	0.72	C	0.77	C
		Project Scenario 3	0.72	C	0.78	C
8. SR-241/Los Patrones Pkwy NB &and Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.66	B	0.55	A
		Project Scenario 1	0.67	B	0.56	A
		Project Scenario 2	0.67	B	0.56	A
		Project Scenario 3	0.68	B	0.56	A
8. SR-241/Los Patrones Pkwy NB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.72	C	0.55	A
		Project Scenario 1	0.73	C	0.56	A
		Project Scenario 2	0.73	C	0.56	A
		Project Scenario 3	0.74	C	0.56	A
9. Marguerite Pkwy and Felipe Rd	Mission Viejo	No Project	0.64	B	0.65	B
		Project Scenario 1	0.64	B	0.65	B
		Project Scenario 2	0.64	B	0.65	B
		Project Scenario 3	0.64	B	0.65	B
10. I-5 SB Ramps and Crown Valley Pkwy*	Mission Viejo	No Project	0.58	A	0.66	B
		Project Scenario 1	0.58	A	0.66	B
		Project Scenario 2	0.58	A	0.66	B
		Project Scenario 3	0.58	A	0.66	B

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
11. I-5 NB Ramps and Crown Valley Pkwy*	Mission Viejo	No Project	0.50	A	0.53	A
		Project Scenario 1	0.50	A	0.53	A
		Project Scenario 2	0.50	A	0.53	A
		Project Scenario 3	0.50	A	0.53	A
12. Puerta Real and Crown Valley Pkwy*	Mission Viejo	No Project	0.56	A	0.55	A
		Project Scenario 1	0.56	A	0.55	A
		Project Scenario 2	0.56	A	0.55	A
		Project Scenario 3	0.56	A	0.55	A
13. Medical Center Rd and Crown Valley Pkwy*	Mission Viejo	No Project	0.52	A	.63	B
		Project Scenario 1	0.52	A	0.63	B
		Project Scenario 2	0.52	A	0.63	B
		Project Scenario 3	0.52	A	0.63	B
14. Los Altos and Crown Valley Pkwy*	Mission Viejo	No Project	0.53	A	0.49	A
		Project Scenario 1	0.53	A	0.49	A
		Project Scenario 2	0.53	A	0.50	A
		Project Scenario 3	0.54	A	0.50	A
15. Bellogente and Crown Valley Pkwy*	Mission Viejo	No Project	0.50	A	0.46	A
		Project Scenario 1	0.51	A	0.46	A
		Project Scenario 2	0.51	A	0.46	A
		Project Scenario 3	0.51	A	0.46	A
16. Marguerite Pkwy and Crown Valley Pkwy*	Mission Viejo	No Project	0.71	C	0.82	D
		Project Scenario 1	0.71	C	0.82	D
		Project Scenario 2	0.71	C	0.82	D
		Project Scenario 3	0.71	C	0.82	D

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
17. Antonio Pkwy and Crown Valley Pkwy	County	No Project	0.53	A	0.59	A
		Project Scenario 1	0.54	A	0.61	B
		Project Scenario 2	0.54	A	0.61	B
		Project Scenario 3	0.55	A	0.62	B
18. Camino Capistrano and Ortega Hwy	San Juan Capistrano	No Project	0.48	A	0.47	A
		Project Scenario 1	0.48	A	0.47	A
		Project Scenario 2	0.48	A	0.47	A
		Project Scenario 3	0.48	A	0.47	A
19. Del Obispo St and Ortega Hwy*	San Juan Capistrano	No Project	0.47	A	0.61	B
		Project Scenario 1	0.47	A	0.61	B
		Project Scenario 2	0.47	A	0.61	B
		Project Scenario 3	0.47	A	0.61	B
20. I-5 SB Ramps and Ortega Hwy*	San Juan Capistrano	No Project	0.61	B	0.64	B
		Project Scenario 1	0.61	B	0.65	B
		Project Scenario 2	0.61	B	0.65	B
		Project Scenario 3	0.61	B	0.66	B
21. I-5 NB Ramps and Ortega Hwy*	San Juan Capistrano	No Project	0.65	B	0.56	A
		Project Scenario 1	0.65	B	0.56	A
		Project Scenario 2	0.65	B	0.56	A
		Project Scenario 3	0.65	B	0.56	A
22. Rancho Viejo Rd and Ortega Hwy	San Juan Capistrano	No Project	0.67	B	0.71	C
		Project Scenario 1	0.67	B	0.71	C
		Project Scenario 2	0.67	B	0.71	C
		Project Scenario 3	0.67	B	0.72	C

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
23. La Novia Ave and Ortega Hwy	San Juan Capistrano	No Project	0.68	B	0.66	B
		Project Scenario 1	0.68	B	0.67	B
		Project Scenario 2	0.69	B	0.67	B
		Project Scenario 3	0.69	B	0.67	B
24. Antonio Pkwy/Avenida La Pata and Ortega Hwy	San Juan Capistrano	No Project	0.84	D	0.62	B
		Project Scenario 1	0.84	D	0.62	B
		Project Scenario 2	0.84	D	0.62	B
		Project Scenario 3	0.84	D	0.63	B
25. Camino Capistrano and Del Obispo St*	San Juan Capistrano	No Project	0.65	B	0.67	B
		Project Scenario 1	0.65	B	0.67	B
		Project Scenario 2	0.65	B	0.67	B
		Project Scenario 3	0.65	B	0.67	B
26. Camino Capistrano and San Juan Creek Rd*	San Juan Capistrano	No Project	0.37	A	0.42	A
		Project Scenario 1	0.37	A	0.42	A
		Project Scenario 2	0.37	A	0.42	A
		Project Scenario 3	0.37	A	0.42	A
27. Camino Capistrano and I-5 SB Ramps*	San Juan Capistrano	No Project	0.49	A	0.54	A
		Project Scenario 1	0.49	A	0.54	A
		Project Scenario 2	0.49	A	0.54	A
		Project Scenario 3	0.49	A	0.54	A
28. Valle Rd and San Juan Creek Rd	San Juan Capistrano	No Project	0.57	A	0.62	B
		Project Scenario 1	0.57	A	0.62	B
		Project Scenario 2	0.57	A	0.62	B
		Project Scenario 3	0.57	A	0.62	B

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
29. Valle Rd and La Novia Ave/I-5 NB Ramps	San Juan Capistrano	No Project	0.48	A	0.55	A
		Project Scenario 1	0.48	A	0.55	A
		Project Scenario 2	0.48	A	0.55	A
		Project Scenario 3	0.48	A	0.55	A
30. La Novia Ave and San Juan Creek Rd	San Juan Capistrano	No Project	0.48	A	0.42	A
		Project Scenario 1	0.48	A	0.42	A
		Project Scenario 2	0.48	A	0.42	A
		Project Scenario 3	0.48	A	0.42	A
31. Avenida La Pata and Vista Montana	County	No Project	0.75	C	0.52	A
		Project Scenario 1	0.75	C	0.53	A
		Project Scenario 2	0.75	C	0.53	A
		Project Scenario 3	0.75	C	0.53	A
32. Avenida La Pata and Camino del Rio	San Clemente	No Project	0.48	A	0.49	A
		Project Scenario 1	0.48	A	0.49	A
		Project Scenario 2	0.48	A	0.49	A
		Project Scenario 3	0.48	A	0.49	A
33. Avenida La Pata and Avenida Vista Hermosa	San Clemente	No Project	0.54	A	0.54	A
		Project Scenario 1	0.54	A	0.54	A
		Project Scenario 2	0.54	A	0.54	A
		Project Scenario 3	0.54	A	0.54	A
34. Avenida La Pata and Avenida Pico	San Clemente	No Project	0.67	B	0.71	C
		Project Scenario 1	0.67	B	0.71	C
		Project Scenario 2	0.67	B	0.71	C
		Project Scenario 3	0.67	B	0.71	C

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
35. Avenida Vista Hermosa and Avenida Pico	San Clemente	No Project	0.28	A	0.29	A
		Project Scenario 1	0.28	A	0.30	A
		Project Scenario 2	0.28	A	0.30	A
		Project Scenario 3	0.28	A	0.30	A
36. Los Patrones Pkwy SB and Chiquita Canyon Dr	County	No Project	0.50	A	0.77	C
		Project Scenario 1	0.52	A	0.78	C
		Project Scenario 2	0.52	A	0.78	C
		Project Scenario 3	0.52	A	0.78	C
37. Los Patrones Pkwy NB and Grandeza Dr	County	No Project	0.62	B	0.50	A
		Project Scenario 1	0.64	B	0.52	A
		Project Scenario 2	0.65	B	0.52	A
		Project Scenario 3	0.65	B	0.53	A
38. Legado Dr and Grandeza Dr	County	No Project	0.47	A	0.56	A
		Project Scenario 1	0.50	A	0.56	A
		Project Scenario 2	0.50	A	0.56	A
		Project Scenario 3	0.50	A	0.57	A
39. Antonio Pkwy and Cow Camp Rd	County	No Project	0.53	A	0.60	A
		Project Scenario 1	0.54	A	0.62	B
		Project Scenario 2	0.54	A	0.63	B
		Project Scenario 3	0.55	A	0.63	B
40. Chiquita Canyon Dr and Cow Camp Rd	County	No Project	0.56	A	0.60	A
		Project Scenario 1	0.58	A	0.63	B
		Project Scenario 2	0.58	A	0.63	B
		Project Scenario 3	0.59	A	0.64	B

TABLE 4.9-7
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
41. Los Patrones Pkwy and Cow Camp Rd	County	No Project	0.66	B	0.55	A
		Project Scenario 1	0.67	B	0.56	A
		Project Scenario 2	0.68	B	0.56	A
		Project Scenario 3	0.68	B	0.56	A
42. Legado Dr and Cow Camp Rd	County	No Project	0.60	A	0.63	B
		Project Scenario 1	0.62	B	0.64	B
		Project Scenario 2	0.62	B	0.65	B
		Project Scenario 3	0.64	B	0.66	B
43. Grandeza Dr and Cow Camp Rd	County	No Project	0.44	A	0.50	A
		Project Scenario 1	0.45	A	0.50	A
		Project Scenario 2	0.45	A	0.50	A
		Project Scenario 3	0.45	A	0.50	A
44. Ortega Hwy and Cow Camp Rd	County	No Project	0.64	B	0.74	C
		Project Scenario 1	0.64	B	0.74	C
		Project Scenario 2	0.64	B	0.74	C
		Project Scenario 3	0.64	B	0.74	C

ICU: intersection capacity utilization; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route

* LOS E is acceptable at this location.

Source: Stantec 2016

TABLE 4.9-8
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
1. I-5 SB Ramps and Oso Pkwy	No Project	10	A	19	B
	Project Scenario 1	10	A	19	B
	Project Scenario 2	10	A	19	B
	Project Scenario 3	10	A	19	B
2. I-5 NB Ramps and Oso Pkwy	No Project	13	B	16	B
	Project Scenario 1	13	B	16	B
	Project Scenario 2	13	B	16	B
	Project Scenario 3	13	B	16	B
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	12	B	13	B
	Project Scenario 1	12	B	13	B
	Project Scenario 2	13	B	13	B
	Project Scenario 3	13	B	13	B
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	11	B	14	B
	Project Scenario 1	11	B	15	B
	Project Scenario 2	11	B	15	B
	Project Scenario 3	11	B	15	B
8. SR-241/Los Patrones Pkwy NB &and Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	22	C	14	B
	Project Scenario 1	22	C	14	B
	Project Scenario 2	22	C	14	B
	Project Scenario 3	22	C	14	B
8. SR-241/Los Patrones Pkwy NB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	25	C	15	B
	Project Scenario 1	26	C	15	B
	Project Scenario 2	27	C	15	B
	Project Scenario 3	27	C	15	B

TABLE 4.9-8
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
10. I-5 SB Ramps and Crown Valley Pkwy*	No Project	19	B	33	C
	Project Scenario 1	19	B	33	C
	Project Scenario 2	19	B	33	C
	Project Scenario 3	19	B	33	C
11. I-5 NB Ramps and Crown Valley Pkwy*	No Project	11	B	11	B
	Project Scenario 1	11	B	11	B
	Project Scenario 2	11	B	11	B
	Project Scenario 3	11	B	11	B
18. Camino Capistrano and Ortega Hwy	No Project	12	B	12	B
	Project Scenario 1	12	B	12	B
	Project Scenario 2	12	B	12	B
	Project Scenario 3	12	B	12	B
19. Del Obispo St and Ortega Hwy*	No Project	12	B	19	B
	Project Scenario 1	12	B	19	B
	Project Scenario 2	12	B	19	B
	Project Scenario 3	12	B	19	B
20. I-5 SB Ramps and Ortega Hwy*	No Project	17	B	17	B
	Project Scenario 1	17	B	17	B
	Project Scenario 2	17	B	17	B
	Project Scenario 3	17	B	17	B
21. I-5 NB Ramps and Ortega Hwy*	No Project	15	B	30	C
	Project Scenario 1	15	B	30	C
	Project Scenario 2	15	B	30	C
	Project Scenario 3	15	B	30	C

TABLE 4.9-8
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
22. Rancho Viejo Rd and Ortega Hwy	No Project	29	C	28	C
	Project Scenario 1	30	C	28	C
	Project Scenario 2	30	C	28	C
	Project Scenario 3	30	C	28	C
23. La Novia Ave and Ortega Hwy	No Project	19	B	20	B
	Project Scenario 1	21	B	20	B
	Project Scenario 2	21	B	20	B
	Project Scenario 3	21	B	20	B
24. Antonio Pkwy/Avenida La Pata and Ortega Hwy	No Project	39	D	25	C
	Project Scenario 1	39	D	25	C
	Project Scenario 2	39	D	25	C
	Project Scenario 3	40	D	25	C
25. Camino Capistrano and Del Obispo St*	No Project	32	C	32	C
	Project Scenario 1	32	C	32	C
	Project Scenario 2	32	C	32	C
	Project Scenario 3	32	C	32	C
26. Camino Capistrano and San Juan Creek Rd*	No Project	13	B	14	B
	Project Scenario 1	13	B	14	B
	Project Scenario 2	13	B	14	B
	Project Scenario 3	13	B	14	B
27. Camino Capistrano and I-5 SB Ramps*	No Project	16	B	16	B
	Project Scenario 1	16	B	16	B
	Project Scenario 2	16	B	16	B
	Project Scenario 3	16	B	16	B

TABLE 4.9-8
ALTERNATIVE BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY
(HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
28. Valle Rd and San Juan Creek Rd	No Project	14	B	14	B
	Project Scenario 1	14	B	14	B
	Project Scenario 2	14	B	14	B
	Project Scenario 3	14	B	14	B
29. Valle Rd and La Novia Ave/I-5 NB Ramps	No Project	17	B	17	B
	Project Scenario 1	17	B	17	B
	Project Scenario 2	17	B	17	B
	Project Scenario 3	17	B	17	B
30. La Novia Ave and San Juan Creek Rd	No Project	28	C	22	C
	Project Scenario 1	28	C	22	C
	Project Scenario 2	28	C	22	C
	Project Scenario 3	28	C	22	C
44. Ortega Hwy and Cow Camp Rd	No Project	23	C	29	C
	Project Scenario 1	23	C	30	C
	Project Scenario 2	23	C	30	C
	Project Scenario 3	23	C	30	C

LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route

* LOS E is acceptable at this location.

Source: Stantec 2016

Long-Range (Year 2035) Cumulative Conditions Without the State Route 241 Toll Road Extension

Intersection Capacity Utilization

The AM and PM peak hour ICU values for the Project Development Alternatives are summarized in Table 4.9-9 for the long-range (Year 2035) Project Development Alternatives without the SR-241 toll road extension. As shown, all of the intersection locations analyzed in the study area are forecasted to operate at acceptable levels of service with the exception of the City of San Juan Capistrano Valle Road/San Juan Creek Road intersection during the PM peak hour in this scenario. However, based on the impact threshold outlined in Table 4.9-2, the Project development scenarios do not adversely impact this deficient intersection. For the Valle Road/San Juan Creek Road intersection there would be no change in the ICU value or LOS between the No Project Alternative and any of the Project development scenarios under the Long-Range (Year 2035) Cumulative Conditions without the SR-241 toll road extension scenario. The No Project and all the Project development scenarios would all have an ICU of 0.93 and operate at LOS E at this intersection in the PM peak period, and none of the Project development scenarios would cause the intersection to operate at a deficient LOS. Therefore, Project related impacts are less than significant and no mitigation is required. It should be noted, SCRIP includes improvements at the Valle Road/San Juan Creek Road intersection that are partially funded through the SCRIP on a fair share basis. The SCRIP requirement at this intersection has been satisfied with recent improvements that have been implemented at the San Juan Creek Road/I-5 interchange through the City of San Juan Capistrano's Nexus program.

Highway Capacity Utilization Methodology

In the HCM intersection analysis methodology for the City of San Juan Capistrano and Caltrans intersections, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. AM and PM peak hour HCM-based intersection levels of service for the Project development scenarios are summarized in Table 4.9-10 for the long-range without the SR-241 extension. As the summary tables indicate, all of the San Juan Capistrano and Caltrans intersections analyzed in the study area are forecast to operate at acceptable levels of service for the Project development scenarios. Therefore, impacts would be less than significant and no mitigation is required.

Long-Range (Year 2035) Cumulative Conditions Plus Project Development Scenarios - With the State Route 241 Toll Road Extension

Intersection Capacity Utilization

The long-range (Year 2035) AM and PM peak hour ICU values for the Project development scenarios with the SR-241 Toll Road Extension are summarized in Table 4.9-11. Based on the peak hour intersection performance criteria discussed in Section 4.9.2, Methodology, all intersection locations analyzed in the study area are forecasted to operate at acceptable levels of service. Therefore, Project related impacts are less than significant and no mitigation is required.

Highway Capacity Utilization Methodology

AM and PM peak hour HCM-based intersection levels of service for the City of San Juan Capistrano and Caltrans intersections for the Project development scenarios are summarized in Table 4.9-12 assuming 2035 long-range traffic and the extension of SR-241 to I-5. As the summary tables indicate, all of the San Juan Capistrano and Caltrans intersections analyzed in the study area are forecast to operate at acceptable levels of service for the Project development scenarios. Therefore, impacts would be less than significant and no mitigation is required.

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
1. I-5 SB Ramps and Oso Pkwy	Mission Viejo	No Project	0.53	A	0.78	C
		Project Scenario 1	0.53	A	0.78	C
		Project Scenario 2	0.53	A	0.78	C
		Project Scenario 3	0.53	A	0.78	C
2. I-5 NB Ramps and Oso Pkwy	Mission Viejo	No Project	0.55	A	0.80	C
		Project Scenario 1	0.55	A	0.80	C
		Project Scenario 2	0.55	A	0.80	C
		Project Scenario 3	0.55	A	0.80	C
3. Marguerite Pkwy and Oso Pkwy	Mission Viejo	No Project	0.74	C	0.69	B
		Project Scenario 1	0.74	C	0.69	B
		Project Scenario 2	0.74	C	0.69	B
		Project Scenario 3	0.74	C	0.69	B
4. Felipe Rd and Oso Pkwy	Mission Viejo	No Project	0.85	D	0.90	D
		Project Scenario 1	0.85	D	0.90	D
		Project Scenario 2	0.85	D	0.90	D
		Project Scenario 3	0.85	D	0.90	D
5. Antonio Pkwy and Oso Pkwy	County	No Project	0.65	B	0.65	B
		Project Scenario 1	0.65	B	0.65	B
		Project Scenario 2	0.65	B	0.65	B
		Project Scenario 3	0.65	B	0.65	B
6. Tesoro Creek Rd and Oso Pkwy	County	No Project	0.77	C	0.57	A
		Project Scenario 1	0.78	C	0.58	A
		Project Scenario 2	0.78	C	0.58	A
		Project Scenario 3	0.78	C	0.59	A

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.61	B	0.64	B
		Project Scenario 1	0.62	B	0.66	B
		Project Scenario 2	0.62	B	0.66	B
		Project Scenario 3	0.62	B	0.66	B
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.75	C	0.80	C
		Project Scenario 1	0.76	C	0.82	D
		Project Scenario 2	0.76	C	0.82	D
		Project Scenario 3	0.76	C	0.83	D
8. SR-241/Los Patrones Pkwy NB &andOso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.70	B	0.57	A
		Project Scenario 1	0.71	C	0.58	A
		Project Scenario 2	0.71	C	0.58	A
		Project Scenario 3	0.71	C	0.58	A
8. SR-241/Los Patrones Pkwy NB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	County	No Project	0.76	C	0.57	A
		Project Scenario 1	0.77	C	0.58	A
		Project Scenario 2	0.77	C	0.58	A
		Project Scenario 3	0.77	C	0.58	A
9. Marguerite Pkwy and Felipe Rd	Mission Viejo	No Project	0.68	B	0.57	A
		Project Scenario 1	0.68	B	0.57	A
		Project Scenario 2	0.68	B	0.57	A
		Project Scenario 3	0.68	B	0.57	A
10. I-5 SB Ramps and Crown Valley Pkwy*	Mission Viejo	No Project	0.59	A	0.67	B
		Project Scenario 1	0.59	A	0.67	B
		Project Scenario 2	0.59	A	0.67	B
		Project Scenario 3	0.59	A	0.67	B

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
11. I-5 NB Ramps and Crown Valley Pkwy*	Mission Viejo	No Project	0.52	A	0.56	A
		Project Scenario 1	0.52	A	0.56	A
		Project Scenario 2	0.52	A	0.56	A
		Project Scenario 3	0.52	A	0.56	A
12. Puerta Real and Crown Valley Pkwy*	Mission Viejo	No Project	0.57	A	0.71	C
		Project Scenario 1	0.57	A	0.72	C
		Project Scenario 2	0.57	A	0.72	C
		Project Scenario 3	0.57	A	0.72	C
13. Medical Center Rd and Crown Valley Pkwy*	Mission Viejo	No Project	0.47	A	0.55	A
		Project Scenario 1	0.47	A	0.56	A
		Project Scenario 2	0.47	A	0.56	A
		Project Scenario 3	0.47	A	0.56	A
14. Los Altos and Crown Valley Pkwy*	Mission Viejo	No Project	0.43	A	0.41	A
		Project Scenario 1	0.43	A	0.41	A
		Project Scenario 2	0.43	A	0.42	A
		Project Scenario 3	0.43	A	0.42	A
15. Bellogente and Crown Valley Pkwy*	Mission Viejo	No Project	0.41	A	0.38	A
		Project Scenario 1	0.42	A	0.39	A
		Project Scenario 2	0.42	A	0.39	A
		Project Scenario 3	0.42	A	0.39	A
16. Marguerite Pkwy and Crown Valley Pkwy*	Mission Viejo	No Project	0.70	B	0.73	C
		Project Scenario 1	0.70	B	0.73	C
		Project Scenario 2	0.70	B	0.73	C
		Project Scenario 3	0.71	C	0.73	C

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
17. Antonio Pkwy and Crown Valley Pkwy	County	No Project	0.45	A	0.53	A
		Project Scenario 1	0.45	A	0.53	A
		Project Scenario 2	0.45	A	0.54	A
		Project Scenario 3	0.46	A	0.54	A
18. Camino Capistrano and Ortega Hwy	San Juan Capistrano	No Project	0.76	C	0.71	C
		Project Scenario 1	0.76	C	0.71	C
		Project Scenario 2	0.76	C	0.71	C
		Project Scenario 3	0.76	C	0.71	C
19. Del Obispo St and Ortega Hwy*	San Juan Capistrano	No Project	0.74	C	0.68	B
		Project Scenario 1	0.75	C	0.68	B
		Project Scenario 2	0.75	C	0.68	B
		Project Scenario 3	0.75	C	0.68	B
20. I-5 SB Ramps and Ortega Hwy*	San Juan Capistrano	No Project	0.68	B	0.80	C
		Project Scenario 1	0.68	B	0.80	C
		Project Scenario 2	0.68	B	0.80	C
		Project Scenario 3	0.68	B	0.81	D
21. I-5 NB Ramps and Ortega Hwy*	San Juan Capistrano	No Project	0.73	C	0.67	B
		Project Scenario 1	0.73	C	0.67	B
		Project Scenario 2	0.73	C	0.67	B
		Project Scenario 3	0.73	C	0.67	B
22. Rancho Viejo Rd and Ortega Hwy	San Juan Capistrano	No Project	0.80	C	0.75	C
		Project Scenario 1	0.80	C	0.76	C
		Project Scenario 2	0.80	C	0.76	C
		Project Scenario 3	0.80	C	0.76	C

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
23. La Novia Ave and Ortega Hwy	San Juan Capistrano	No Project	0.71	C	0.64	B
		Project Scenario 1	0.72	C	0.65	B
		Project Scenario 2	0.72	C	0.65	B
		Project Scenario 3	0.72	C	0.66	B
24. Antonio Pkwy/Avenida La Pata and Ortega Hwy	San Juan Capistrano	No Project	0.88	D	0.75	C
		Project Scenario 1	0.88	D	0.75	C
		Project Scenario 2	0.88	D	0.75	C
		Project Scenario 3	0.88	D	0.75	C
25. Camino Capistrano and Del Obispo St*	San Juan Capistrano	No Project	0.76	C	0.82	D
		Project Scenario 1	0.76	C	0.82	D
		Project Scenario 2	0.76	C	0.82	D
		Project Scenario 3	0.76	C	0.82	D
26. Camino Capistrano and San Juan Creek Rd*	San Juan Capistrano	No Project	0.60	A	0.66	B
		Project Scenario 1	0.60	A	0.66	B
		Project Scenario 2	0.60	A	0.66	B
		Project Scenario 3	0.60	A	0.66	B
27. Camino Capistrano and I-5 SB Ramps*	San Juan Capistrano	No Project	0.66	B	0.68	B
		Project Scenario 1	0.66	B	0.68	B
		Project Scenario 2	0.66	B	0.68	B
		Project Scenario 3	0.66	B	0.68	B
28. Valle Rd and San Juan Creek Rd	San Juan Capistrano	No Project	0.80	C	0.93	E
		Project Scenario 1	0.80	C	0.93	E
		Project Scenario 2	0.80	C	0.93	E
		Project Scenario 3	0.80	C	0.93	E

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
29. Valle Rd and La Novia Ave/I-5 NB Ramps	San Juan Capistrano	No Project	0.72	C	0.65	B
		Project Scenario 1	0.72	C	0.65	B
		Project Scenario 2	0.72	C	0.65	B
		Project Scenario 3	0.72	C	0.65	B
30. La Novia Ave and San Juan Creek Rd	San Juan Capistrano	No Project	0.51	A	0.45	A
		Project Scenario 1	0.51	A	0.45	A
		Project Scenario 2	0.51	A	0.45	A
		Project Scenario 3	0.51	A	0.45	A
31. Avenida La Pata and Vista Montana	County	No Project	0.87	D	0.66	B
		Project Scenario 1	0.88	D	0.66	B
		Project Scenario 2	0.88	D	0.66	B
		Project Scenario 3	0.88	D	0.66	B
32. Avenida La Pata and Camino del Rio	San Clemente	No Project	0.77	C	0.88	D
		Project Scenario 1	0.77	C	0.88	D
		Project Scenario 2	0.77	C	0.88	D
		Project Scenario 3	0.77	C	0.88	D
33. Avenida La Pata and Avenida Vista Hermosa	San Clemente	No Project	0.78	C	0.76	C
		Project Scenario 1	0.79	C	0.76	C
		Project Scenario 2	0.79	C	0.76	C
		Project Scenario 3	0.79	C	0.76	C
34. Avenida La Pata and Avenida Pico	San Clemente	No Project	0.87	D	0.85	D
		Project Scenario 1	0.87	D	0.85	D
		Project Scenario 2	0.87	D	0.85	D
		Project Scenario 3	0.87	D	0.85	D

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
35. Avenida Vista Hermosa and Avenida Pico	San Clemente	No Project	0.49	A	0.52	A
		Project Scenario 1	0.49	A	0.52	A
		Project Scenario 2	0.49	A	0.52	A
		Project Scenario 3	0.49	A	0.52	A
36. Los Patrones Pkwy SB and Chiquita Canyon Dr	County	No Project	0.53	A	0.79	C
		Project Scenario 1	0.54	A	0.81	D
		Project Scenario 2	0.54	A	0.81	D
		Project Scenario 3	0.54	A	0.82	D
37. Los Patrones Pkwy NB and Grandeza Dr	County	No Project	0.63	B	0.52	A
		Project Scenario 1	0.65	B	0.55	A
		Project Scenario 2	0.65	B	0.55	A
		Project Scenario 3	0.67	B	0.55	A
38. Legado Dr and Grandeza Dr	County	No Project	0.49	A	0.56	A
		Project Scenario 1	0.50	A	0.57	A
		Project Scenario 2	0.50	A	0.57	A
		Project Scenario 3	0.51	A	0.58	A
39. Antonio Pkwy and Cow Camp Rd	County	No Project	0.64	B	0.69	B
		Project Scenario 1	0.64	B	0.70	B
		Project Scenario 2	0.65	B	0.70	B
		Project Scenario 3	0.65	B	0.71	C
40. Chiquita Canyon Dr and Cow Camp Rd	County	No Project	0.61	B	0.67	B
		Project Scenario 1	0.63	B	0.69	B
		Project Scenario 2	0.63	B	0.69	B
		Project Scenario 3	0.64	B	0.70	B

TABLE 4.9-9
LONG-RANGE (YEAR 2035) WITHOUT THE STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
41. Los Patrones Pkwy and Cow Camp Rd	County	No Project	0.77	C	0.63	B
		Project Scenario 1	0.79	C	0.64	B
		Project Scenario 2	0.79	C	0.64	B
		Project Scenario 3	0.80	C	0.64	B
42. Legado Dr and Cow Camp Rd	County	No Project	0.63	B	0.67	B
		Project Scenario 1	0.66	B	0.68	B
		Project Scenario 2	0.66	B	0.69	B
		Project Scenario 3	0.67	B	0.69	B
43. Grandeza Dr and Cow Camp Rd	County	No Project	0.52	A	0.53	A
		Project Scenario 1	0.53	A	0.54	A
		Project Scenario 2	0.53	A	0.54	A
		Project Scenario 3	0.53	A	0.55	A
44. Ortega Hwy and Cow Camp Rd	County	No Project	0.71	C	0.84	D
		Project Scenario 1	0.71	C	0.84	D
		Project Scenario 2	0.71	C	0.84	D
		Project Scenario 3	0.71	C	0.84	D

ICU: intersection capacity utilization; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route

* LOS E is acceptable at this location.

Denotes a peak hour deficiency.

Source: Stantec 2016

TABLE 4.9-10
LONG-TERM (YEAR 2035) WITHOUT STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
1. I-5 SB Ramps and Oso Pkwy	No Project	12	B	19	B
	Project Scenario 1	12	B	19	B
	Project Scenario 2	12	B	19	B
	Project Scenario 3	12	B	19	B
2. I-5 NB Ramps and Oso Pkwy	No Project	14	B	31	C
	Project Scenario 1	14	B	31	C
	Project Scenario 2	14	B	31	C
	Project Scenario 3	14	B	31	C
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	13	B	14	B
	Project Scenario 1	13	B	14	B
	Project Scenario 2	13	B	14	B
	Project Scenario 3	13	B	14	B
7. SR-241/Los Patrones Pkwy SB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	14	B	16	B
	Project Scenario 1	14	B	18	B
	Project Scenario 2	14	B	19	B
	Project Scenario 3	14	B	19	B
8. SR-241/Los Patrones Pkwy NB &and Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	26	C	14	B
	Project Scenario 1	26	C	14	B
	Project Scenario 2	26	C	14	B
	Project Scenario 3	26	C	14	B
8. SR-241/Los Patrones Pkwy NB and Oso Pkwy (Assumes construction of an Oso Pkwy bridge and a direct connection between the SR-241 mainline and Los Patrones Pkwy)	No Project	31	C	15	B
	Project Scenario 1	33	C	15	B
	Project Scenario 2	34	C	15	B
	Project Scenario 3	34	C	15	B

TABLE 4.9-10
LONG-TERM (YEAR 2035) WITHOUT STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
10. I-5 SB Ramps and Crown Valley Pkwy*	No Project	19	B	30	C
	Project Scenario 1	19	B	30	C
	Project Scenario 2	19	B	30	C
	Project Scenario 3	19	B	30	C
11. I-5 NB Ramps and Crown Valley Pkwy*	No Project	13	B	12	B
	Project Scenario 1	13	B	12	B
	Project Scenario 2	13	B	12	B
	Project Scenario 3	13	B	12	B
18. Camino Capistrano and Ortega Hwy	No Project	23	C	24	C
	Project Scenario 1	23	C	24	C
	Project Scenario 2	23	C	24	C
	Project Scenario 3	23	C	24	C
19. Del Obispo St and Ortega Hwy*	No Project	41	D	34	C
	Project Scenario 1	41	D	34	C
	Project Scenario 2	41	D	34	C
	Project Scenario 3	41	D	34	C
20. I-5 SB Ramps and Ortega Hwy*	No Project	25	C	29	C
	Project Scenario 1	25	C	30	C
	Project Scenario 2	25	C	30	C
	Project Scenario 3	25	C	30	C
21. I-5 NB Ramps and Ortega Hwy*	No Project	22	C	34	C
	Project Scenario 1	23	C	34	C
	Project Scenario 2	23	C	34	C
	Project Scenario 3	23	C	34	C

TABLE 4.9-10
LONG-TERM (YEAR 2035) WITHOUT STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
22. Rancho Viejo Rd and Ortega Hwy	No Project	43	D	34	C
	Project Scenario 1	45	D	34	C
	Project Scenario 2	45	D	34	C
	Project Scenario 3	45	D	35	C
23. La Novia Ave and Ortega Hwy	No Project	17	B	19	B
	Project Scenario 1	18	B	19	B
	Project Scenario 2	18	B	19	B
	Project Scenario 3	18	B	20	B
24. Antonio Pkwy/Avenida La Pata and Ortega Hwy	No Project	42	D	33	C
	Project Scenario 1	42	D	34	C
	Project Scenario 2	42	D	34	C
	Project Scenario 3	42	D	34	C
25. Camino Capistrano and Del Obispo St*	No Project	35	C	46	D
	Project Scenario 1	35	C	46	D
	Project Scenario 2	35	C	46	D
	Project Scenario 3	35	C	46	D
26. Camino Capistrano and San Juan Creek Rd*	No Project	21	C	32	C
	Project Scenario 1	21	C	32	C
	Project Scenario 2	21	C	32	C
	Project Scenario 3	21	C	32	C
27. Camino Capistrano and I-5 SB Ramps*	No Project	20	B	21	C
	Project Scenario 1	20	B	21	C
	Project Scenario 2	20	B	21	C
	Project Scenario 3	20	B	21	C

TABLE 4.9-10
LONG-TERM (YEAR 2035) WITHOUT STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
28. Valle Rd and San Juan Creek Rd	No Project	16	B	22	C
	Project Scenario 1	16	B	22	C
	Project Scenario 2	16	B	22	C
	Project Scenario 3	16	B	22	C
29. Valle Rd and La Novia Ave/I-5 NB Ramps	No Project	26	C	21	C
	Project Scenario 1	26	C	21	C
	Project Scenario 2	26	C	21	C
	Project Scenario 3	26	C	21	C
30. La Novia Ave and San Juan Creek Rd	No Project	29	C	24	C
	Project Scenario 1	29	C	24	C
	Project Scenario 2	29	C	24	C
	Project Scenario 3	29	C	24	C
44. Ortega Hwy and Cow Camp Rd	No Project	25	C	43	D
	Project Scenario 1	26	C	43	D
	Project Scenario 2	26	C	43	D
	Project Scenario 3	26	C	43	D

LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route

* LOS E is acceptable at this location.

Source: Stantec 2016

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
1. I-5 SB Ramps and Oso Pkwy	Mission Viejo	No Project	0.54	A	0.75	C
		Project Scenario 1	0.54	A	0.75	C
		Project Scenario 2	0.54	A	0.75	C
		Project Scenario 3	0.54	A	0.75	C
2. I-5 NB Ramps and Oso Pkwy	Mission Viejo	No Project	0.57	A	0.78	C
		Project Scenario 1	0.57	A	0.78	C
		Project Scenario 2	0.57	A	0.78	C
		Project Scenario 3	0.57	A	0.78	C
3. Marguerite Pkwy and Oso Pkwy	Mission Viejo	No Project	0.73	C	0.68	B
		Project Scenario 1	0.73	C	0.68	B
		Project Scenario 2	0.73	C	0.68	B
		Project Scenario 3	0.73	C	0.68	B
4. Felipe Rd and Oso Pkwy	Mission Viejo	No Project	0.85	D	0.88	D
		Project Scenario 1	0.85	D	0.88	D
		Project Scenario 2	0.85	D	0.88	D
		Project Scenario 3	0.85	D	0.89	D
5. Antonio Pkwy and Oso Pkwy	County	No Project	0.62	B	0.65	B
		Project Scenario 1	0.62	B	0.65	B
		Project Scenario 2	0.62	B	0.65	B
		Project Scenario 3	0.62	B	0.65	B
6. Tesoro Creek and Oso Pkwy	County	No Project	0.55	A	0.46	A
		Project Scenario 1	0.55	A	0.47	A
		Project Scenario 2	0.55	A	0.47	A
		Project Scenario 3	0.55	A	0.47	A

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
7. SR-241 SB Ramps and Oso Pkwy	County	No Project	0.39	A	0.46	A
		Project Scenario 1	0.39	A	0.48	A
		Project Scenario 2	0.40	A	0.48	A
		Project Scenario 3	0.40	A	0.49	A
8. SR-241 NB Ramps and Oso Pkwy	County	No Project	0.53	A	0.46	A
		Project Scenario 1	0.54	A	0.47	A
		Project Scenario 2	0.54	A	0.47	A
		Project Scenario 3	0.54	A	0.47	A
9. Marguerite Pkwy and Felipe Rd	Mission Viejo	No Project	0.68	B	0.55	A
		Project Scenario 1	0.68	B	0.55	A
		Project Scenario 2	0.68	B	0.55	A
		Project Scenario 3	0.68	B	0.55	A
10. I-5 SB Ramps and Crown Valley Pkwy*	Mission Viejo	No Project	0.61	B	0.69	B
		Project Scenario 1	0.61	B	0.70	B
		Project Scenario 2	0.61	B	0.70	B
		Project Scenario 3	0.61	B	0.70	B
11. I-5 NB Ramps and Crown Valley Pkwy*	Mission Viejo	No Project	0.53	A	0.58	A
		Project Scenario 1	0.53	A	0.58	A
		Project Scenario 2	0.53	A	0.58	A
		Project Scenario 3	0.53	A	0.58	A
12. Puerta Real and Crown Valley Pkwy*	Mission Viejo	No Project	0.58	A	0.72	C
		Project Scenario 1	0.58	A	0.72	C
		Project Scenario 2	0.58	A	0.72	C
		Project Scenario 3	0.58	A	0.72	C

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
13. Medical Center Rd and Crown Valley Pkwy*	Mission Viejo	No Project	0.48	A	0.56	A
		Project Scenario 1	0.49	A	0.56	A
		Project Scenario 2	0.49	A	0.56	A
		Project Scenario 3	0.49	A	0.56	A
14. Los Altos and Crown Valley Pkwy*	Mission Viejo	No Project	0.44	A	0.42	A
		Project Scenario 1	0.44	A	0.42	A
		Project Scenario 2	0.44	A	0.42	A
		Project Scenario 3	0.44	A	0.42	A
15. Bellogente and Crown Valley Pkwy*	Mission Viejo	No Project	0.42	A	0.39	A
		Project Scenario 1	0.42	A	0.39	A
		Project Scenario 2	0.43	A	0.39	A
		Project Scenario 3	0.43	A	0.39	A
16. Marguerite Pkwy and Crown Valley Pkwy*	Mission Viejo	No Project	0.72	C	0.72	C
		Project Scenario 1	0.73	C	0.72	C
		Project Scenario 2	0.73	C	0.72	C
		Project Scenario 3	0.73	C	0.72	C
17. Antonio Pkwy and Crown Valley Pkwy	County	No Project	0.55	A	0.51	A
		Project Scenario 1	0.56	A	0.53	A
		Project Scenario 2	0.56	A	0.53	A
		Project Scenario 3	0.57	A	0.54	A
18. Camino Capistrano and Ortega Hwy	San Juan Capistrano	No Project	0.71	C	0.67	B
		Project Scenario 1	0.71	C	0.67	B
		Project Scenario 2	0.71	C	0.67	B
		Project Scenario 3	0.71	C	0.67	B

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
19. Del Obispo St and Ortega Hwy*	San Juan Capistrano	No Project	0.73	C	0.68	B
		Project Scenario 1	0.74	C	0.68	B
		Project Scenario 2	0.74	C	0.68	B
		Project Scenario 3	0.74	C	0.68	B
20. I-5 SB Ramps and Ortega Hwy*	San Juan Capistrano	No Project	0.73	C	0.85	D
		Project Scenario 1	0.73	C	0.85	D
		Project Scenario 2	0.73	C	0.85	D
		Project Scenario 3	0.73	C	0.85	D
21. I-5 NB Ramps and Ortega Hwy*	San Juan Capistrano	No Project	0.72	C	0.69	B
		Project Scenario 1	0.72	C	0.69	B
		Project Scenario 2	0.72	C	0.69	B
		Project Scenario 3	0.72	C	0.69	B
22. Rancho Viejo Rd and Ortega Hwy	San Juan Capistrano	No Project	0.76	C	0.80	C
		Project Scenario 1	0.76	C	0.80	C
		Project Scenario 2	0.76	C	0.80	C
		Project Scenario 3	0.76	C	0.80	C
23. La Novia Ave and Ortega Hwy	San Juan Capistrano	No Project	0.72	C	0.67	B
		Project Scenario 1	0.73	C	0.67	B
		Project Scenario 2	0.73	C	0.67	B
		Project Scenario 3	0.74	C	0.68	B
24. Antonio Pkwy/Avenida La Pata and Ortega Hwy	San Juan Capistrano	No Project	0.85	D	0.59	A
		Project Scenario 1	0.85	D	0.60	A
		Project Scenario 2	0.85	D	0.60	A
		Project Scenario 3	0.85	D	0.61	B

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
25. Camino Capistrano and Del Obispo St*	San Juan Capistrano	No Project	0.72	C	0.78	C
		Project Scenario 1	0.72	C	0.78	C
		Project Scenario 2	0.72	C	0.78	C
		Project Scenario 3	0.72	C	0.78	C
26. Camino Capistrano and San Juan Creek Rd*	San Juan Capistrano	No Project	0.58	A	0.61	B
		Project Scenario 1	0.58	A	0.61	B
		Project Scenario 2	0.58	A	0.61	B
		Project Scenario 3	0.58	A	0.61	B
27. Camino Capistrano and I-5 SB Ramps*	San Juan Capistrano	No Project	0.64	B	0.69	B
		Project Scenario 1	0.64	B	0.69	B
		Project Scenario 2	0.64	B	0.69	B
		Project Scenario 3	0.64	B	0.69	B
28. Valle Rd and San Juan Creek Rd	San Juan Capistrano	No Project	0.79	C	0.90	D
		Project Scenario 1	0.79	C	0.90	D
		Project Scenario 2	0.79	C	0.90	D
		Project Scenario 3	0.79	C	0.90	D
29. Valle Rd and La Novia Ave/I-5 NB Ramps	San Juan Capistrano	No Project	0.73	C	0.64	B
		Project Scenario 1	0.73	C	0.64	B
		Project Scenario 2	0.73	C	0.64	B
		Project Scenario 3	0.73	C	0.64	B
30. La Novia Ave and San Juan Creek Rd	San Juan Capistrano	No Project	0.51	A	0.40	A
		Project Scenario 1	0.51	A	0.40	A
		Project Scenario 2	0.51	A	0.40	A
		Project Scenario 3	0.51	A	0.40	A

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
31. Avenida La Pata and Vista Montana	County	No Project	0.69	B	0.48	A
		Project Scenario 1	0.69	B	0.48	A
		Project Scenario 2	0.69	B	0.48	A
		Project Scenario 3	0.69	B	0.48	A
32. Avenida La Pata and Camino del Rio	San Clemente	No Project	0.78	C	0.71	C
		Project Scenario 1	0.78	C	0.71	C
		Project Scenario 2	0.78	C	0.71	C
		Project Scenario 3	0.78	C	0.71	C
33. Avenida La Pata and Avenida Vista Hermosa	San Clemente	No Project	0.62	B	0.75	C
		Project Scenario 1	0.62	B	0.75	C
		Project Scenario 2	0.62	B	0.75	C
		Project Scenario 3	0.62	B	0.75	C
34. Avenida La Pata and Avenida Pico	San Clemente	No Project	0.67	B	0.84	D
		Project Scenario 1	0.67	B	0.84	D
		Project Scenario 2	0.67	B	0.84	D
		Project Scenario 3	0.67	B	0.84	D
35. Avenida Vista Hermosa and Avenida Pico	San Clemente	No Project	0.50	A	0.65	B
		Project Scenario 1	0.50	A	0.65	B
		Project Scenario 2	0.50	A	0.65	B
		Project Scenario 3	0.50	A	0.65	B
36. SR-241 SB Ramps and Chiquita Canyon Dr	County	No Project	0.47	A	0.71	C
		Project Scenario 1	0.50	A	0.72	C
		Project Scenario 2	0.50	A	0.72	C
		Project Scenario 3	0.50	A	0.73	C

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
37. SR-241 NB Ramps and Grandeza Dr	County	No Project	0.59	A	0.48	A
		Project Scenario 1	0.62	B	0.51	A
		Project Scenario 2	0.62	B	0.51	A
		Project Scenario 3	0.63	B	0.51	A
38. Legado Dr and Grandeza Dr	County	No Project	0.52	A	0.62	B
		Project Scenario 1	0.53	A	0.63	B
		Project Scenario 2	0.53	A	0.63	B
		Project Scenario 3	0.54	A	0.64	B
39. Antonio Pkwy and Cow Camp Rd	County	No Project	0.73	C	0.73	C
		Project Scenario 1	0.74	C	0.74	C
		Project Scenario 2	0.74	C	0.74	C
		Project Scenario 3	0.74	C	0.75	C
40. Chiquita Canyon Dr and Cow Camp Rd	County	No Project	0.77	C	0.79	C
		Project Scenario 1	0.78	C	0.80	C
		Project Scenario 2	0.79	C	0.80	C
		Project Scenario 3	0.80	C	0.81	D
42. Legado Dr and Cow Camp Rd	County	No Project	0.63	B	0.67	B
		Project Scenario 1	0.66	B	0.68	B
		Project Scenario 2	0.66	B	0.68	B
		Project Scenario 3	0.67	B	0.69	B
43. Grandeza Dr and Cow Camp Rd	County	No Project	0.54	A	0.53	A
		Project Scenario 1	0.55	A	0.54	A
		Project Scenario 2	0.55	A	0.54	A
		Project Scenario 3	0.55	A	0.54	A

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
44. Ortega Hwy and Cow Camp Rd	County	No Project	0.69	B	0.84	D
		Project Scenario 1	0.69	B	0.85	D
		Project Scenario 2	0.69	B	0.85	D
		Project Scenario 3	0.69	B	0.85	D
45. Chiquita Canyon Dr and "A" St	County	No Project	0.56	A	0.66	B
		Project Scenario 1	0.58	A	0.67	B
		Project Scenario 2	0.58	A	0.67	B
		Project Scenario 3	0.59	A	0.68	B
46. SR-241 SB Ramps and "A" Street	County	No Project	0.32	A	0.29	A
		Project Scenario 1	0.32	A	0.30	A
		Project Scenario 2	0.32	A	0.30	A
		Project Scenario 3	0.33	A	0.30	A
47. SR-241 NB Ramps and "A" Street	County	No Project	0.21	A	0.23	A
		Project Scenario 1	0.22	A	0.24	A
		Project Scenario 2	0.22	A	0.24	A
		Project Scenario 3	0.23	A	0.24	A
48. SR-241 SB Ramps and Avenida Pico	San Clemente	No Project	0.45	A	0.81	D
		Project Scenario 1	0.45	A	0.82	D
		Project Scenario 2	0.45	A	0.82	D
		Project Scenario 3	0.45	A	0.82	D

TABLE 4.9-11
LONG-RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (INTERSECTION CAPACITY UTILIZATION METHODOLOGY)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
49. SR-241 NB Ramps and Avenida Pico	San Clemente	No Project	0.61	B	0.54	A
		Project Scenario 1	0.61	B	0.54	A
		Project Scenario 2	0.61	B	0.54	A
		Project Scenario 3	0.61	B	0.54	A

ICU: intersection capacity utilization; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route

* LOS E is acceptable at this location.

Source: Stantec 2016

TABLE 4.9-12
LONG RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
1. I-5 SB Ramps and Oso Pkwy	No Project	14	B	18	B
	Project Scenario 1	14	B	18	B
	Project Scenario 2	14	B	18	B
	Project Scenario 3	14	B	18	B
2. I-5 NB Ramps and Oso Pkwy	No Project	15	B	33	C
	Project Scenario 1	15	B	33	C
	Project Scenario 2	15	B	33	C
	Project Scenario 3	15	B	33	C
7. SR-241 SB and Oso Pkwy	No Project	9	A	9	A
	Project Scenario 1	9	A	9	A
	Project Scenario 2	9	A	9	A
	Project Scenario 3	9	A	9	A
8. SR-241 NB and Oso Pkwy	No Project	15	B	13	B
	Project Scenario 1	15	B	13	B
	Project Scenario 2	15	B	13	B
	Project Scenario 3	15	B	13	B
10. I-5 SB Ramps and Crown Valley Pkwy*	No Project	20	B	29	C
	Project Scenario 1	20	B	30	C
	Project Scenario 2	20	B	30	C
	Project Scenario 3	20	B	30	C
11. I-5 NB Ramps and Crown Valley Pkwy*	No Project	13	B	13	B
	Project Scenario 1	13	B	13	B
	Project Scenario 2	13	B	13	B
	Project Scenario 3	13	B	13	B

TABLE 4.9-12
LONG RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
18. Camino Capistrano and Ortega Hwy	No Project	25	C	20	C
	Project Scenario 1	25	C	20	C
	Project Scenario 2	25	C	20	C
	Project Scenario 3	25	C	20	C
19. Del Obispo St and Ortega Hwy*	No Project	38	D	32	C
	Project Scenario 1	39	D	32	C
	Project Scenario 2	39	D	32	C
	Project Scenario 3	39	D	32	C
20. I-5 SB Ramps and Ortega Hwy*	No Project	26	C	32	C
	Project Scenario 1	27	C	33	C
	Project Scenario 2	27	C	33	C
	Project Scenario 3	27	C	33	C
21. I-5 NB Ramps and Ortega Hwy*	No Project	27	C	35	C
	Project Scenario 1	28	C	35	C
	Project Scenario 2	28	C	35	C
	Project Scenario 3	28	C	35	C
22. Rancho Viejo Rd and Ortega Hwy	No Project	38	D	37	D
	Project Scenario 1	39	D	37	D
	Project Scenario 2	39	D	37	D
	Project Scenario 3	40	D	38	D
23. La Novia Ave and Ortega Hwy	No Project	18	B	21	C
	Project Scenario 1	18	B	22	C
	Project Scenario 2	18	B	22	C
	Project Scenario 3	19	B	23	C

TABLE 4.9-12
LONG RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
24. Antonio Pkwy/Avenida La Pata and Ortega Hwy	No Project	43	D	28	C
	Project Scenario 1	44	D	28	C
	Project Scenario 2	44	D	28	C
	Project Scenario 3	44	D	28	C
25. Camino Capistrano and Del Obispo St*	No Project	34	C	42	D
	Project Scenario 1	34	C	42	D
	Project Scenario 2	34	C	42	D
	Project Scenario 3	34	C	42	D
26. Camino Capistrano and San Juan Creek Rd*	No Project	19	B	23	C
	Project Scenario 1	19	B	23	C
	Project Scenario 2	19	B	23	C
	Project Scenario 3	19	B	23	C
27. Camino Capistrano and I-5 SB Ramps*	No Project	19	B	21	C
	Project Scenario 1	19	B	21	C
	Project Scenario 2	19	B	21	C
	Project Scenario 3	19	B	21	C
28. Valle Rd and San Juan Creek Rd	No Project	16	B	23	C
	Project Scenario 1	16	B	23	C
	Project Scenario 2	16	B	23	C
	Project Scenario 3	16	B	23	C
29. Valle Rd and La Novia Ave/I-5 NB Ramps	No Project	26	C	22	C
	Project Scenario 1	26	C	22	C
	Project Scenario 2	26	C	22	C
	Project Scenario 3	26	C	22	C

TABLE 4.9-12
LONG RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
30. La Novia Ave and San Juan Creek Rd	No Project	23	C	23	C
	Project Scenario 1	23	C	23	C
	Project Scenario 2	23	C	23	C
	Project Scenario 3	23	C	23	C
36. SR-241 SB Ramps and Chiquita Canyon Dr	No Project	14	B	16	B
	Project Scenario 1	14	B	17	B
	Project Scenario 2	14	B	17	B
	Project Scenario 3	14	B	17	B
37. SR-241 NB Ramps and Grandeza Dr	No Project	11	B	5	A
	Project Scenario 1	12	B	6	A
	Project Scenario 2	12	B	6	A
	Project Scenario 3	13	B	6	A
44. Ortega Hwy and Cow Camp Rd	No Project	25	C	44	D
	Project Scenario 1	25	C	44	D
	Project Scenario 2	25	C	44	D
	Project Scenario 3	25	C	44	D
46. SR-241 SB Ramps and “A” St	No Project	9	A	9	A
	Project Scenario 1	9	A	9	A
	Project Scenario 2	9	A	9	A
	Project Scenario 3	9	A	9	A
47. SR-241 NB Ramps and “A” St	No Project	14	B	14	B
	Project Scenario 1	15	B	15	B
	Project Scenario 2	15	B	15	B
	Project Scenario 3	15	B	15	B

TABLE 4.9-12
LONG RANGE (YEAR 2035) WITH STATE ROUTE 241 EXTENSION INTERSECTION LEVEL OF SERVICE SUMMARY (HIGHWAY CAPACITY MANUAL SIGNALIZED METHODOLOGY)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
48. SR-241 SB Ramps and Avenida Pico	No Project	7	A	22	C
	Project Scenario 1	7	A	23	C
	Project Scenario 2	7	A	23	C
	Project Scenario 3	7	A	23	C
49. SR-241 NB Ramps and Avenida Pico	No Project	18	B	11	B
	Project Scenario 1	18	B	11	B
	Project Scenario 2	18	B	11	B
	Project Scenario 3	18	B	11	B

LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route

* LOS E is acceptable at this location.

Source: Stantec 2016

Peak Hour Freeway/Toll Road Ramp Levels of Service

Alternative Baseline Plus Project Development Scenarios

AM and PM peak hour freeway/toll road ramp volumes and volume/capacity (V/C) ratios for the Project development scenarios are summarized in Table 4.9-13 for the Alternative Baseline. As shown, for all the Project development scenarios the ramps analyzed in the study area are forecasted to operate at acceptable levels of service except for the northbound direct on-ramp at the I-5/Crown Valley Parkway interchange during the PM peak hour. However, based on the peak hour freeway/toll road ramp impact thresholds discussed in Section 4.9.2, Methodology (Table 4.9-4), the deficient ramp is not significantly impacted by the Project development scenarios because the ramp is forecast to operate at the same deficient level of service with and without the Project. The Project development scenarios would not result in an increase in the V/C ratio. The threshold for a significant impact to the freeway and toll road ramps is an increase in the V/C ratio of 0.01 or greater when compared to the No Project Alternative. Additionally, the Affordable Housing Project does not add 50 or more peak hour trips at any of the freeway/toll road ramps analyzed in the study area; therefore no ramp queuing analysis was carried out as part of this analysis. Impacts to the freeway and toll road mainline would be less than significant and no mitigation is required.

Long-Range (Year 2035) Cumulative Conditions Plus Project Development Scenarios - Without the State Route 241 Toll Road Extension

AM and PM peak hour freeway/toll road ramp volumes and V/C ratios for the Project development scenarios are summarized in Table 4.9-14 for the Long-Range (Year 2035) Without the SR-241 Toll Road Extension scenario. As shown, all of the ramps analyzed in the study area are forecasted to operate at acceptable levels of service in each of the Project development scenarios in Year 2035 without the SR-241 Toll Road Extension. Similar to the Alternative Baseline Plus Project analysis, the Affordable Housing Project does not add 50 or more peak hour trips at any of the freeway/toll road ramps analyzed in the study area; therefore no ramp queuing analysis was carried out as part of this analysis. The Project development scenarios impacts to the freeway and toll road ramps would be less than significant and no mitigation is required.

Long-Range (Year 2035) Cumulative Conditions Plus Development Scenarios - With the State Route 241 Toll Road Extension

AM and PM peak hour freeway/toll road ramp volumes and V/C ratios for the Project Development Scenarios are summarized in Table 4.9-15 for the Long-Range (Year 2035) with the SR-241 Toll Road Extension scenario. As shown, for all the Project development scenarios the ramps analyzed in the study area are forecasted to operate at acceptable levels of service except for the northbound direct on-ramp at the I-5/Crown Valley Parkway interchange during the PM peak hour in this scenario. However, based on the peak hour freeway/toll road ramp impact thresholds (see Table 4.9-4), the deficient ramp is not significantly impacted by the Project development scenarios because the ramp is forecast to operate at the same deficient level of service with and without the Project. The Project development scenarios would not result in an increase in the V/C ratio. The threshold for a significant impact on a deficient impacts to the freeway and toll road ramps is an increase in the V/C ratio of 0.01 or greater when compared to the No Project Alternative. In the long-range, plus Project and the extension of the SR-241 the

Affordable Housing Project does not add 50 or more peak hour trips at any of the freeway/toll road ramps analyzed in the study area; therefore no ramp queuing analysis was carried out as part of this analysis. Impacts to the freeway and toll road mainline would be less than significant and no mitigation is required.

TABLE 4.9-13
ALTERNATIVE BASELINE FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Oso Pkwy	SB Direct On	No Project	1	1,500	510	0.34	A	520	0.35	A
		Project Scenario 1	1	1,500	510	0.34	A	520	0.35	A
		Project Scenario 2	1	1,500	510	0.34	A	520	0.35	A
		Project Scenario 3	1	1,500	510	0.34	A	520	0.35	A
	SB Loop On	No Project	1	1,080	650	0.60	A	470	0.44	A
		Project Scenario 1	1	1,080	650	0.60	A	470	0.44	A
		Project Scenario 2	1	1,080	650	0.60	A	470	0.44	A
		Project Scenario 3	1	1,080	650	0.60	A	470	0.44	A
	NB Direct On	No Project	1	1,500	1,370	0.91	E	910	0.61	B
		Project Scenario 1	1	1,500	1,380	0.92	E	920	0.61	B
		Project Scenario 2	1	1,500	1,380	0.92	E	920	0.61	B
		Project Scenario 3	1	1,500	1,380	0.92	E	920	0.61	B
	NB Loop On	No Project	1	1,500	410	0.27	A	340	0.23	A
		Project Scenario 1	1	1,500	410	0.27	A	340	0.23	A
		Project Scenario 2	1	1,500	410	0.27	A	340	0.23	A
		Project Scenario 3	1	1,500	410	0.27	A	340	0.23	A
	SB Off	No Project	2	2,250	850	0.38	A	1,560	0.69	B
		Project Scenario 1	2	2,250	850	0.38	A	1,570	0.70	B
		Project Scenario 2	2	2,250	850	0.38	A	1,570	0.70	B
		Project Scenario 3	2	2,250	850	0.38	A	1,570	0.70	B
	NB Off	No Project	2	2,250	800	0.36	A	1,030	0.46	A
		Project Scenario 1	2	2,250	800	0.36	A	1,030	0.46	A
		Project Scenario 2	2	2,250	800	0.36	A	1,030	0.46	A
		Project Scenario 3	2	2,250	800	0.36	A	1,030	0.46	A

TABLE 4.9-13
ALTERNATIVE BASELINE FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Crown Valley Pkwy	SB On	No Project	1	1,500	570	0.38	A	800	0.53	A
		Project Scenario 1	1	1,500	570	0.38	A	800	0.53	A
		Project Scenario 2	1	1,500	570	0.38	A	800	0.53	A
		Project Scenario 3	1	1,500	570	0.38	A	800	0.53	A
	NB Direct On	No Project	1	1,500	1,200	0.80	C	1,510	1.01	F
		Project Scenario 1	1	1,500	1,210	0.81	D	1,520	1.01	F
		Project Scenario 2	1	1,500	1,210	0.81	D	1,520	1.01	F
		Project Scenario 3	1	1,500	1,210	0.81	D	1,520	1.01	F
	NB Loop On	No Project	1	1,500	590	0.39	A	700	0.47	A
		Project Scenario 1	1	1,500	590	0.39	A	700	0.47	A
		Project Scenario 2	1	1,500	590	0.39	A	700	0.47	A
		Project Scenario 3	1	1,500	590	0.39	A	700	0.47	A
	SB Off	No Project	2	2,250	2,080	0.92	E	2,110	0.94	E
		Project Scenario 1	2	2,250	2,080	0.92	E	2,120	0.94	E
		Project Scenario 2	2	2,250	2,080	0.92	E	2,120	0.94	E
		Project Scenario 3	2	2,250	2,080	0.92	E	2,120	0.94	E
	NB Off	No Project	1	1,500	680	0.45	A	640	0.43	A
		Project Scenario 1	1	1,500	680	0.45	A	640	0.43	A
		Project Scenario 2	1	1,500	680	0.45	A	640	0.43	A
		Project Scenario 3	1	1,500	680	0.45	A	640	0.43	A
I-5 at Ortega Hwy	SB On	No Project	1	1,500	320	0.21	A	220	0.15	A
		Project Scenario 1	1	1,500	320	0.21	A	220	0.15	A
		Project Scenario 2	1	1,500	320	0.21	A	220	0.15	A
		Project Scenario 3	1	1,500	320	0.21	A	220	0.15	A

TABLE 4.9-13
ALTERNATIVE BASELINE FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Ortega Hwy (cont.)	NB Direct On	No Project	1	1,500	1,410	0.94	E	1,000	0.67	B
		Project Scenario 1	1	1,500	1,420	0.95	E	1,000	0.67	B
		Project Scenario 2	1	1,500	1,420	0.95	E	1,000	0.67	B
		Project Scenario 3	1	1,500	1,430	0.95	E	1,010	0.67	B
	NB Loop On	No Project	1	1,500	680	0.45	A	800	0.53	A
		Project Scenario 1	1	1,500	680	0.45	A	800	0.53	A
		Project Scenario 2	1	1,500	680	0.45	A	800	0.53	A
		Project Scenario 3	1	1,500	680	0.45	A	800	0.53	A
	SB Off	No Project	2	2,900	1,480	0.51	A	1,680	0.58	A
		Project Scenario 1	2	2,900	1,480	0.51	A	1,690	0.58	A
		Project Scenario 2	2	2,900	1,480	0.51	A	1,690	0.58	A
		Project Scenario 3	2	2,900	1,480	0.51	A	1,700	0.59	A
	NB Off	No Project	1	1,500	620	0.41	A	500	0.33	A
		Project Scenario 1	1	1,500	620	0.41	A	500	0.33	A
		Project Scenario 2	1	1,500	620	0.41	A	500	0.33	A
		Project Scenario 3	1	1,500	620	0.41	A	500	0.33	A
I-5 at Camino Capistrano	SB On	No Project	1	1,500	460	0.31	A	550	0.37	A
		Project Scenario 1	1	1,500	460	0.31	A	550	0.37	A
		Project Scenario 2	1	1,500	460	0.31	A	550	0.37	A
		Project Scenario 3	1	1,500	460	0.31	A	550	0.37	A
	NB On	No Project	1	1,500	440	0.29	A	360	0.24	A
		Project Scenario 1	1	1,500	440	0.29	A	360	0.24	A
		Project Scenario 2	1	1,500	440	0.29	A	360	0.24	A
		Project Scenario 3	1	1,500	440	0.29	A	360	0.24	A

TABLE 4.9-13
ALTERNATIVE BASELINE FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano (cont.)	SB Off	No Project	2	2,250	930	0.41	A	1,130	0.50	A
		Project Scenario 1	2	2,250	930	0.41	A	1,130	0.50	A
		Project Scenario 2	2	2,250	930	0.41	A	1,130	0.50	A
		Project Scenario 3	2	2,250	930	0.41	A	1,130	0.50	A
	NB Off	No Project	1	1,500	410	0.27	A	510	0.34	A
		Project Scenario 1	1	1,500	410	0.27	A	510	0.34	A
		Project Scenario 2	1	1,500	410	0.27	A	510	0.34	A
		Project Scenario 3	1	1,500	410	0.27	A	510	0.34	A
SR-241 at Oso Pkwy	NB On	No Project	2	3,000	1,400	0.47	A	530	0.18	A
		Project Scenario 1	2	3,000	1,410	0.47	A	540	0.18	A
		Project Scenario 2	2	3,000	1,410	0.47	A	540	0.18	A
		Project Scenario 3	2	3,000	1,420	0.47	A	540	0.18	A
	SB Off	No Project	2	3,000	570	0.19	A	1,350	0.45	A
		Project Scenario 1	2	3,000	580	0.19	A	1,360	0.45	A
		Project Scenario 2	2	3,000	580	0.19	A	1,360	0.45	A
		Project Scenario 3	2	3,000	580	0.19	A	1,370	0.46	A

V/C: volume/capacity ratio; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route

Denotes a peak hour deficiency.

Source: Stantec 2016

TABLE 4.9-14
LONG-RANGE WITHOUT THE STATE ROUTE 241 EXTENSION
FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Oso Pkwy	SB Direct On	No Project	1	1,500	400	0.27	A	520	0.35	A
		Project Scenario 1	1	1,500	400	0.27	A	520	0.35	A
		Project Scenario 2	1	1,500	400	0.27	A	520	0.35	A
		Project Scenario 3	1	1,500	400	0.27	A	520	0.35	A
	SB Loop On	No Project	1	1,080	720	0.67	B	660	0.61	B
		Project Scenario 1	1	1,080	720	0.67	B	660	0.61	B
		Project Scenario 2	1	1,080	720	0.67	B	660	0.61	B
		Project Scenario 3	1	1,080	720	0.67	B	660	0.61	B
	NB Direct On	No Project	1	1,500	1,380	0.92	E	710	0.47	A
		Project Scenario 1	1	1,500	1,390	0.93	E	720	0.48	A
		Project Scenario 2	1	1,500	1,390	0.93	E	720	0.48	A
		Project Scenario 3	1	1,500	1,390	0.93	E	720	0.48	A
	NB Loop On	No Project	1	1,500	500	0.33	A	390	0.26	A
		Project Scenario 1	1	1,500	500	0.33	A	390	0.26	A
		Project Scenario 2	1	1,500	500	0.33	A	390	0.26	A
		Project Scenario 3	1	1,500	500	0.33	A	390	0.26	A
	SB Off	No Project	2	2,250	1,340	0.60	A	1,710	0.76	C
		Project Scenario 1	2	2,250	1,340	0.60	A	1,720	0.76	C
		Project Scenario 2	2	2,250	1,340	0.60	A	1,720	0.76	C
		Project Scenario 3	2	2,250	1,340	0.60	A	1,720	0.76	C
	NB Off	No Project	2	2,250	790	0.35	A	1,200	0.53	A
		Project Scenario 1	2	2,250	790	0.35	A	1,200	0.53	A
		Project Scenario 2	2	2,250	790	0.35	A	1,200	0.53	A
		Project Scenario 3	2	2,250	790	0.35	A	1,200	0.53	A

TABLE 4.9-14
LONG-RANGE WITHOUT THE STATE ROUTE 241 EXTENSION
FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Crown Valley Pkwy	SB On	No Project	1	1,500	600	0.40	A	810	0.54	A
		Project Scenario 1	1	1,500	600	0.40	A	810	0.54	A
		Project Scenario 2	1	1,500	600	0.40	A	810	0.54	A
		Project Scenario 3	1	1,500	600	0.40	A	810	0.54	A
	NB Direct On	No Project	1	1,500	1,210	0.81	D	1,480	0.99	E
		Project Scenario 1	1	1,500	1,220	0.81	D	1,490	0.99	E
		Project Scenario 2	1	1,500	1,220	0.81	D	1,490	0.99	E
		Project Scenario 3	1	1,500	1,220	0.81	D	1,490	0.99	E
	NB Loop On	No Project	1	1,500	760	0.51	A	510	0.34	A
		Project Scenario 1	1	1,500	760	0.51	A	510	0.34	A
		Project Scenario 2	1	1,500	760	0.51	A	510	0.34	A
		Project Scenario 3	1	1,500	760	0.51	A	510	0.34	A
	SB Off	No Project	2	3,000	1,890	0.63	B	2,440	0.81	D
		Project Scenario 1	2	3,000	1,890	0.63	B	2,450	0.82	D
		Project Scenario 2	2	3,000	1,890	0.63	B	2,450	0.82	D
		Project Scenario 3	2	3,000	1,890	0.63	B	2,450	0.82	D
	NB Off	No Project	1	1,500	870	0.58	A	680	0.45	A
		Project Scenario 1	1	1,500	870	0.58	A	680	0.45	A
		Project Scenario 2	1	1,500	870	0.58	A	680	0.45	A
		Project Scenario 3	1	1,500	870	0.58	A	680	0.45	A
I-5 at Ortega Hwy	SB On	No Project	1	1,500	1,000	0.67	B	1,090	0.73	C
		Project Scenario 1	1	1,500	1,000	0.67	B	1,090	0.73	C
		Project Scenario 2	1	1,500	1,000	0.67	B	1,090	0.73	C
		Project Scenario 3	1	1,500	1,000	0.67	B	1,090	0.73	C

TABLE 4.9-14
LONG-RANGE WITHOUT THE STATE ROUTE 241 EXTENSION
FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Ortega Hwy (cont.)	NB Direct On	No Project	1	1,500	670	0.45	A	590	0.39	A
		Project Scenario 1	1	1,500	680	0.45	A	590	0.39	A
		Project Scenario 2	1	1,500	680	0.45	A	590	0.39	A
		Project Scenario 3	1	1,500	690	0.46	A	600	0.40	A
	NB Loop On	No Project	1	1,500	700	0.47	A	690	0.46	A
		Project Scenario 1	1	1,500	700	0.47	A	690	0.46	A
		Project Scenario 2	1	1,500	700	0.47	A	690	0.46	A
		Project Scenario 3	1	1,500	700	0.47	A	690	0.46	A
	SB Off	No Project	2	2,900	1,770	0.61	B	2,010	0.69	B
		Project Scenario 1	2	2,900	1,770	0.61	B	2,020	0.70	B
		Project Scenario 2	2	2,900	1,770	0.61	B	2,020	0.70	B
		Project Scenario 3	2	2,900	1,770	0.61	B	2,030	0.70	B
	NB Off	No Project	1	1,500	1,110	0.74	C	880	0.59	A
		Project Scenario 1	1	1,500	1,110	0.74	C	880	0.59	A
		Project Scenario 2	1	1,500	1,110	0.74	C	880	0.59	A
		Project Scenario 3	1	1,500	1,110	0.74	C	880	0.59	A
I-5 at Camino Capistrano	SB On	No Project	1	1,500	610	0.41	A	650	0.43	A
		Project Scenario 1	1	1,500	610	0.41	A	650	0.43	A
		Project Scenario 2	1	1,500	610	0.41	A	650	0.43	A
		Project Scenario 3	1	1,500	610	0.41	A	650	0.43	A
	NB On	No Project	1	1,500	890	0.59	A	600	0.40	A
		Project Scenario 1	1	1,500	890	0.59	A	600	0.40	A
		Project Scenario 2	1	1,500	890	0.59	A	600	0.40	A
		Project Scenario 3	1	1,500	890	0.59	A	600	0.40	A

TABLE 4.9-14
LONG-RANGE WITHOUT THE STATE ROUTE 241 EXTENSION
FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
	SB Off	No Project	2	2,250	930	0.41	A	1,200	0.53	A
		Project Scenario 1	2	2,250	930	0.41	A	1,200	0.53	A
		Project Scenario 2	2	2,250	930	0.41	A	1,200	0.53	A
		Project Scenario 3	2	2,250	930	0.41	A	1,200	0.53	A
	NB Off	No Project	1	1,500	520	0.35	A	520	0.35	A
		Project Scenario 1	1	1,500	520	0.35	A	520	0.35	A
		Project Scenario 2	1	1,500	520	0.35	A	520	0.35	A
		Project Scenario 3	1	1,500	520	0.35	A	520	0.35	A
SR-241 at Oso Pkwy	NB On	No Project	2	3,000	1,780	0.59	A	700	0.23	A
		Project Scenario 1	2	3,000	1,790	0.60	A	710	0.24	A
		Project Scenario 2	2	3,000	1,790	0.60	A	710	0.24	A
		Project Scenario 3	2	3,000	1,800	0.60	A	710	0.24	A
	SB Off	No Project	2	3,000	680	0.23	A	1,720	0.57	A
		Project Scenario 1	2	3,000	690	0.23	A	1,730	0.58	A
		Project Scenario 2	2	3,000	690	0.23	A	1,730	0.58	A
		Project Scenario 3	2	3,000	690	0.23	A	1,740	0.58	A

V/C: volume/capacity ratio; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route
Source: Stantec 2016

TABLE 4.9-15
LONG-RANGE WITH SR-241 EXTENSION FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Oso Pkwy	SB Direct On	No Project	1	1,500	400	0.27	A	600	0.40	A
		Project Scenario 1	1	1,500	400	0.27	A	600	0.40	A
		Project Scenario 2	1	1,500	400	0.27	A	600	0.40	A
		Project Scenario 3	1	1,500	400	0.27	A	600	0.40	A
	SB Loop On	No Project	1	1,080	740	0.69	B	610	0.56	A
		Project Scenario 1	1	1,080	740	0.69	B	610	0.56	A
		Project Scenario 2	1	1,080	740	0.69	B	610	0.56	A
		Project Scenario 3	1	1,080	740	0.69	B	610	0.56	A
	NB Direct On	No Project	1	1,500	1,320	0.88	D	650	0.43	A
		Project Scenario 1	1	1,500	1,330	0.89	D	650	0.43	A
		Project Scenario 2	1	1,500	1,330	0.89	D	650	0.43	A
		Project Scenario 3	1	1,500	1,330	0.89	D	650	0.43	A
	NB Loop On	No Project	1	1,500	480	0.32	A	400	0.27	A
		Project Scenario 1	1	1,500	480	0.32	A	400	0.27	A
		Project Scenario 2	1	1,500	480	0.32	A	400	0.27	A
		Project Scenario 3	1	1,500	480	0.32	A	400	0.27	A
	SB Off	No Project	2	2,250	1,230	0.55	A	1,640	0.73	C
		Project Scenario 1	2	2,250	1,230	0.55	A	1,650	0.73	C
		Project Scenario 2	2	2,250	1,230	0.55	A	1,650	0.73	C
		Project Scenario 3	2	2,250	1,230	0.55	A	1,650	0.73	C
	NB Off	No Project	2	2,250	820	0.36	A	1,190	0.53	A
		Project Scenario 1	2	2,250	820	0.36	A	1,190	0.53	A
		Project Scenario 2	2	2,250	820	0.36	A	1,190	0.53	A
		Project Scenario 3	2	2,250	820	0.36	A	1,190	0.53	A

TABLE 4.9-15
LONG-RANGE WITH SR-241 EXTENSION FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Crown Valley Pkwy	SB On	No Project	1	1,500	610	0.41	A	820	0.55	A
		Project Scenario 1	1	1,500	610	0.41	A	820	0.55	A
		Project Scenario 2	1	1,500	610	0.41	A	820	0.55	A
		Project Scenario 3	1	1,500	610	0.41	A	820	0.55	A
	NB Direct On	No Project	1	1,500	1,300	0.87	D	1,560	1.04	F
		Project Scenario 1	1	1,500	1,310	0.87	D	1,560	1.04	F
		Project Scenario 2	1	1,500	1,310	0.87	D	1,560	1.04	F
		Project Scenario 3	1	1,500	1,310	0.87	D	1,560	1.04	F
	NB Loop On	No Project	1	1,500	760	0.51	A	580	0.39	A
		Project Scenario 1	1	1,500	760	0.51	A	580	0.39	A
		Project Scenario 2	1	1,500	760	0.51	A	580	0.39	A
		Project Scenario 3	1	1,500	760	0.51	A	580	0.39	A
	SB Off	No Project	2	3,000	2,030	0.68	B	2,560	0.85	D
		Project Scenario 1	2	3,000	2,030	0.68	B	2,570	0.86	D
		Project Scenario 2	2	3,000	2,030	0.68	B	2,570	0.86	D
		Project Scenario 3	2	3,000	2,030	0.68	B	2,570	0.86	D
	NB Off	No Project	1	1,500	880	0.59	A	690	0.46	A
		Project Scenario 1	1	1,500	880	0.59	A	690	0.46	A
		Project Scenario 2	1	1,500	880	0.59	A	690	0.46	A
		Project Scenario 3	1	1,500	880	0.59	A	690	0.46	A
I-5 at Ortega Hwy	SB On	No Project	1	1,500	990	0.66	B	1,030	0.69	B
		Project Scenario 1	1	1,500	990	0.66	B	1,030	0.69	B
		Project Scenario 2	1	1,500	990	0.66	B	1,030	0.69	B
		Project Scenario 3	1	1,500	990	0.66	B	1,030	0.69	B

TABLE 4.9-15
LONG-RANGE WITH SR-241 EXTENSION FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Ortega Hwy (cont.)	NB Direct On	No Project	1	1,500	810	0.54	A	760	0.51	A
		Project Scenario 1	1	1,500	820	0.55	A	760	0.51	A
		Project Scenario 2	1	1,500	820	0.55	A	760	0.51	A
		Project Scenario 3	1	1,500	830	0.55	A	770	0.51	A
	NB Loop On	No Project	1	1,500	780	0.52	A	750	0.50	A
		Project Scenario 1	1	1,500	780	0.52	A	750	0.50	A
		Project Scenario 2	1	1,500	780	0.52	A	750	0.50	A
		Project Scenario 3	1	1,500	780	0.52	A	750	0.50	A
	SB Off	No Project	2	2,900	1,970	0.68	B	2,220	0.77	C
		Project Scenario 1	2	2,900	1,970	0.68	B	2,230	0.77	C
		Project Scenario 2	2	2,900	1,970	0.68	B	2,230	0.77	C
		Project Scenario 3	2	2,900	1,970	0.68	B	2,240	0.77	C
	NB Off	No Project	1	1,500	1,030	0.69	B	870	0.58	A
		Project Scenario 1	1	1,500	1,030	0.69	B	870	0.58	A
		Project Scenario 2	1	1,500	1,030	0.69	B	870	0.58	A
		Project Scenario 3	1	1,500	1,030	0.69	B	870	0.58	A
I-5 at Camino Capistrano	SB On	No Project	1	1,500	610	0.41	A	650	0.43	A
		Project Scenario 1	1	1,500	610	0.41	A	650	0.43	A
		Project Scenario 2	1	1,500	610	0.41	A	650	0.43	A
		Project Scenario 3	1	1,500	610	0.41	A	650	0.43	A
	NB On	No Project	1	1,500	910	0.61	B	650	0.43	A
		Project Scenario 1	1	1,500	910	0.61	B	650	0.43	A
		Project Scenario 2	1	1,500	910	0.61	B	650	0.43	A
		Project Scenario 3	1	1,500	910	0.61	B	650	0.43	A

TABLE 4.9-15
LONG-RANGE WITH SR-241 EXTENSION FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano (cont.)	SB Off	No Project	2	2,250	990	0.44	A	1,400	0.62	B
		Project Scenario 1	2	2,250	990	0.44	A	1,400	0.62	B
		Project Scenario 2	2	2,250	990	0.44	A	1,400	0.62	B
		Project Scenario 3	2	2,250	990	0.44	A	1,400	0.62	B
	NB Off	No Project	1	1,500	510	0.34	A	540	0.36	A
		Project Scenario 1	1	1,500	510	0.34	A	540	0.36	A
		Project Scenario 2	1	1,500	510	0.34	A	540	0.36	A
		Project Scenario 3	1	1,500	510	0.34	A	540	0.36	A
SR-241 at Oso Pkwy	SB On	No Project	1	1,500	400	0.27	A	680	0.45	A
		Project Scenario 1	1	1,500	410	0.27	A	710	0.47	A
		Project Scenario 2	1	1,500	410	0.27	A	720	0.48	A
		Project Scenario 3	1	1,500	410	0.27	A	730	0.49	A
	NB On	No Project	1	1,500	400	0.27	A	120	0.08	A
		Project Scenario 1	1	1,500	400	0.27	A	120	0.08	A
		Project Scenario 2	1	1,500	400	0.27	A	120	0.08	A
		Project Scenario 3	1	1,500	400	0.27	A	120	0.08	A
	SB Off	No Project	1	1,500	130	0.09	A	240	0.16	A
		Project Scenario 1	1	1,500	130	0.09	A	240	0.16	A
		Project Scenario 2	1	1,500	130	0.09	A	240	0.16	A
		Project Scenario 3	1	1,500	130	0.09	A	240	0.16	A
	NB Off	No Project	1	1,500	470	0.31	A	550	0.37	A
		Project Scenario 1	1	1,500	500	0.33	A	570	0.38	A
		Project Scenario 2	1	1,500	510	0.34	A	570	0.38	A
		Project Scenario 3	1	1,500	520	0.35	A	580	0.39	A

TABLE 4.9-15
LONG-RANGE WITH SR-241 EXTENSION FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 at Chiquita Canyon Rd/ Grandeza Dr	NB On	No Project	1	1,500	920	0.61	B	740	0.49	A
		Project Scenario 1	1	1,500	960	0.64	B	770	0.51	A
		Project Scenario 2	1	1,500	970	0.65	B	770	0.51	A
		Project Scenario 3	1	1,500	990	0.66	B	780	0.52	A
	SB Off	No Project	1	1,500	450	0.30	A	1,150	0.77	C
		Project Scenario 1	1	1,500	460	0.31	A	1,170	0.78	C
		Project Scenario 2	1	1,500	460	0.31	A	1,170	0.78	C
		Project Scenario 3	1	1,500	460	0.31	A	1,190	0.79	C
SR-241 at "A" St	SB On	No Project	1	1,500	180	0.12	A	160	0.11	A
		Project Scenario 1	1	1,500	180	0.12	A	160	0.11	A
		Project Scenario 2	1	1,500	180	0.12	A	160	0.11	A
		Project Scenario 3	1	1,500	180	0.12	A	160	0.11	A
	NB On	No Project	1	1,500	190	0.13	A	190	0.13	A
		Project Scenario 1	1	1,500	210	0.14	A	200	0.13	A
		Project Scenario 2	1	1,500	210	0.14	A	200	0.13	A
		Project Scenario 3	1	1,500	220	0.15	A	200	0.13	A
	SB Off	No Project	1	1,500	300	0.20	A	230	0.15	A
		Project Scenario 1	1	1,500	310	0.21	A	250	0.17	A
		Project Scenario 2	1	1,500	310	0.21	A	250	0.17	A
		Project Scenario 3	1	1,500	310	0.21	A	260	0.17	A
	NB Off	No Project	1	1,500	90	0.06	A	120	0.08	A
		Project Scenario 1	1	1,500	90	0.06	A	120	0.08	A
		Project Scenario 2	1	1,500	90	0.06	A	120	0.08	A
		Project Scenario 3	1	1,500	90	0.06	A	120	0.08	A

TABLE 4.9-15
LONG-RANGE WITH SR-241 EXTENSION FREEWAY/TOLL ROAD RAMP LEVEL OF SERVICE SUMMARY

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 at Avenida Pico	SB On	No Project	1	1,500	390	0.26	A	900	0.60	A
		Project Scenario 1	1	1,500	390	0.26	A	900	0.60	A
		Project Scenario 2	1	1,500	390	0.26	A	900	0.60	A
		Project Scenario 3	1	1,500	390	0.26	A	900	0.60	A
	NB On	No Project	1	1,500	750	0.50	A	920	0.61	B
		Project Scenario 1	1	1,500	760	0.51	A	920	0.61	B
		Project Scenario 2	1	1,500	760	0.51	A	920	0.61	B
		Project Scenario 3	1	1,500	760	0.51	A	920	0.61	B
	SB Off	No Project	1	1,500	610	0.41	A	750	0.50	A
		Project Scenario 1	1	1,500	610	0.41	A	760	0.51	A
		Project Scenario 2	1	1,500	610	0.41	A	760	0.51	A
		Project Scenario 3	1	1,500	610	0.41	A	760	0.51	A
	NB Off	No Project	1	1,500	550	0.37	A	480	0.32	A
		Project Scenario 1	1	1,500	550	0.37	A	480	0.32	A
		Project Scenario 2	1	1,500	550	0.37	A	480	0.32	A
		Project Scenario 3	1	1,500	550	0.37	A	480	0.32	A

V/C: volume/capacity ratio; LOS: level of service; I: Interstate; SB: southbound; NB – northbound; SR: State Route

Denotes a peak hour deficiency.

Source: Stantec 2016

Peak Hour Freeway/Toll Road Mainline Levels of Service

Alternative Baseline Plus Project Development Scenarios

AM and PM peak hour freeway/toll road mainline volumes and V/C ratios for the Project development scenarios are summarized in Table 4.9-16 for the Alternative Baseline. As shown, all of the mainline segments analyzed in the study area are forecasted to operate at acceptable levels of service. Therefore, the Project development scenarios would not result in a significant impact and no mitigation is required.

Long-Range (Year 2035) Cumulative Conditions Plus Development Scenarios - Without the State Route 241 Toll Road Extension

AM and PM peak hour freeway/toll road mainline volumes and V/C ratios for the Project development scenarios are summarized in Table 4.9-17 for the Long-Range (Year 2035) Without the SR-241 Toll Road Extension. As shown, all of the mainline segments analyzed in the study area are forecasted to operate at acceptable levels of service with the exception of northbound I-5 between the Camino Capistrano and Ortega Highway interchanges during the AM peak hour. However, based on the peak hour freeway/toll road mainline impact thresholds provided in Table 4.9-5, the deficient mainline segment is not significantly impacted by the Project development scenarios because the mainline segment is forecast to operate at the same deficient level of service with and without the Project. The Project development scenarios would not result in an increase in the V/C ratio. The threshold for a significant impact on a deficient mainline segment is an increase in the V/C ratio of 0.03 or greater when compared to the No Project Alternative. Therefore, impacts to the freeway and toll road mainline would be less than significant and no mitigation is required.

Long-Range (Year 2035) Cumulative Conditions Plus Development Scenarios - With the State Route 241 Toll Road Extension

AM and PM peak hour freeway/toll road mainline volumes and V/C ratios for the Project development scenarios are summarized in Table 4.9-18 for the Long-Range With the SR-241 Toll Road Extension scenario. As shown, all of the mainline segments analyzed in the study area are forecasted to operate at acceptable levels of service. Therefore, impacts to the freeway and toll road mainline would be less than significant and no mitigation is required.

TABLE 4.9-16
ALTERNATIVE BASELINE FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Oso Pkwy	No Project	Northbound	4+1H	9,600	8,260	0.86	D	8,050	0.84	D
		Southbound	4+1H	9,600	7,030	0.73	D	8,520	0.89	D
	Project Scenario 1	Northbound	4+1H	9,600	8,280	0.86	D	8,060	0.84	D
		Southbound	4+1H	9,600	7,030	0.73	D	8,540	0.89	D
	Project Scenario 2	Northbound	4+1H	9,600	8,280	0.86	D	8,060	0.84	D
		Southbound	4+1H	9,600	7,030	0.73	D	8,540	0.89	D
	Project Scenario 3	Northbound	4+1H	9,600	8,290	0.86	D	8,070	0.84	D
		Southbound	4+1H	9,600	7,030	0.73	D	8,550	0.89	D
I-5 north of Crown Valley Pkwy	No Project	Northbound	4+1H	9,600	7,250	0.76	D	7,820	0.81	D
		Southbound	4+1H	9,600	7,330	0.76	D	7,950	0.83	D
	Project Scenario 1	Northbound	4+1H	9,600	7,260	0.76	D	7,830	0.82	D
		Southbound	4+1H	9,600	7,330	0.76	D	7,960	0.83	D
	Project Scenario 2	Northbound	4+1H	9,600	7,260	0.76	D	7,830	0.82	D
		Southbound	4+1H	9,600	7,330	0.76	D	7,960	0.83	D
	Project Scenario 3	Northbound	4+1H	9,600	7,270	0.76	D	7,830	0.82	D
		Southbound	4+1H	9,600	7,330	0.76	D	7,970	0.83	D
I-5 south of Crown Valley Pkwy	No Project	Northbound	4+1H	9,600	5,860	0.61	C	6,080	0.63	C
		Southbound	4+1H	9,600	5,730	0.60	C	6,360	0.66	C
	Project Scenario 1	Northbound	4+1H	9,600	5,870	0.61	C	6,080	0.63	C
		Southbound	4+1H	9,600	5,730	0.60	C	6,370	0.66	C
	Project Scenario 2	Northbound	4+1H	9,600	5,870	0.61	C	6,080	0.63	C
		Southbound	4+1H	9,600	5,730	0.60	C	6,370	0.66	C
	Project Scenario 3	Northbound	4+1H	9,600	5,870	0.61	C	6,080	0.63	C
		Southbound	4+1H	9,600	5,730	0.60	C	6,370	0.66	C

TABLE 4.9-16
ALTERNATIVE BASELINE FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Junipero Serra Rd	No Project	Northbound	5+1H	11,600	9,480	0.82	D	8,080	0.70	C
		Southbound	5+1H	11,600	7,340	0.63	C	9,220	0.79	D
	Project Scenario 1	Northbound	5+1H	11,600	9,490	0.82	D	8,090	0.70	C
		Southbound	5+1H	11,600	7,340	0.63	C	9,230	0.80	D
	Project Scenario 2	Northbound	5+1H	11,600	9,490	0.82	D	8,090	0.70	C
		Southbound	5+1H	11,600	7,340	0.63	C	9,230	0.80	D
	Project Scenario 3	Northbound	5+1H	11,600	9,500	0.82	D	8,090	0.70	C
		Southbound	5+1H	11,600	7,340	0.63	C	9,240	0.80	D
I-5 north of Ortega Hhwy	No Project	Northbound	5+1H	11,600	9,400	0.81	D	7,560	0.65	C
		Southbound	5+1H	11,600	6,710	0.58	C	8,770	0.76	D
	Project Scenario 1	Northbound	5+1H	11,600	9,410	0.81	D	7,570	0.65	C
		Southbound	5+1H	11,600	6,710	0.58	C	8,780	0.76	D
	Project Scenario 2	Northbound	5+1H	11,600	9,410	0.81	D	7,570	0.65	C
		Southbound	5+1H	11,600	6,710	0.58	C	8,780	0.76	D
	Project Scenario 3	Northbound	5+1H	11,600	9,420	0.81	D	7,570	0.65	C
		Southbound	5+1H	11,600	6,710	0.58	C	8,790	0.76	D
I-5 south of Ortega Hwy	No Project	Northbound	4+1H	9,600	7,930	0.83	D	6,250	0.65	C
		Southbound	4+1H	9,600	5,560	0.58	C	7,300	0.76	D
	Project Scenario 1	Northbound	4+1H	9,600	7,930	0.83	D	6,250	0.65	C
		Southbound	4+1H	9,600	5,560	0.58	C	7,300	0.76	D
	Project Scenario 2	Northbound	4+1H	9,600	7,930	0.83	D	6,250	0.65	C
		Southbound	4+1H	9,600	5,560	0.58	C	7,300	0.76	D
	Project Scenario 3	Northbound	4+1H	9,600	7,930	0.83	D	6,250	0.65	C
		Southbound	4+1H	9,600	5,560	0.58	C	7,300	0.76	D

TABLE 4.9-16
ALTERNATIVE BASELINE FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 south of Camino Capistrano	No Project	Northbound	4+1H	9,600	7,850	0.82	D	6,450	0.67	C
		Southbound	5	10,000	5,030	0.50	B	6,820	0.68	C
	Project Scenario 1	Northbound	4+1H	9,600	7,850	0.82	D	6,450	0.67	C
		Southbound	5	10,000	5,030	0.50	B	6,820	0.68	C
	Project Scenario 2	Northbound	4+1H	9,600	7,850	0.82	D	6,450	0.67	C
		Southbound	5	10,000	5,030	0.50	B	6,820	0.68	C
	Project Scenario 3	Northbound	4+1H	9,600	7,850	0.82	D	6,450	0.67	C
		Southbound	5	10,000	5,030	0.50	B	6,820	0.68	C
SR-73 north of I-5	No Project	Northbound	3	6,000	3,200	0.53	C	2,040	0.34	B
		Southbound	3	6,000	1,480	0.25	A	3,060	0.51	C
	Project Scenario 1	Northbound	3	6,000	3,210	0.54	C	2,050	0.34	B
		Southbound	3	6,000	1,480	0.25	A	3,070	0.51	C
	Project Scenario 2	Northbound	3	6,000	3,210	0.54	C	2,050	0.34	B
		Southbound	3	6,000	1,480	0.25	A	3,070	0.51	C
	Project Scenario 3	Northbound	3	6,000	3,210	0.54	C	2,050	0.34	B
		Southbound	3	6,000	1,480	0.25	A	3,070	0.51	C
SR-241 north of Oso Pkwy	No Project	Northbound	2	4,000	1,400	0.35	B	530	0.13	A
		Southbound	2	4,000	570	0.14	A	1,350	0.34	B
	Project Scenario 1	Northbound	2	4,000	1,410	0.35	B	540	0.14	A
		Southbound	2	4,000	580	0.15	A	1,360	0.34	B
	Project Scenario 2	Northbound	2	4,000	1,410	0.35	B	540	0.14	A
		Southbound	2	4,000	580	0.15	A	1,360	0.34	B
	Project Scenario 3	Northbound	2	4,000	1,420	0.36	B	540	0.14	A
		Southbound	2	4,000	580	0.15	A	1,370	0.34	B

V/C: volume/capacity ratio; LOS: level of service; I: Interstate; H: high-occupancy vehicle lane; SR: State Route
Source: Stantec 2016

TABLE 4.9-17
LONG-RANGE WITHOUT STATE ROUTE 241 TOLL ROAD EXTENSION
FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Oso Pkwy	No Project	Northbound	5+1H	11,600	10,820	0.93	E	10,510	0.91	E
		Southbound	5+1H	11,600	9,200	0.79	D	11,380	0.98	E
	Project Scenario 1	Northbound	5+1H	11,600	10,840	0.93	E	10,520	0.91	E
		Southbound	5+1H	11,600	9,200	0.79	D	11,400	0.98	E
	Project Scenario 2	Northbound	5+1H	11,600	10,840	0.93	E	10,520	0.91	E
		Southbound	5+1H	11,600	9,200	0.79	D	11,400	0.98	E
	Project Scenario 3	Northbound	5+1H	11,600	10,850	0.94	E	10,530	0.91	E
		Southbound	5+1H	11,600	9,200	0.79	D	11,410	0.98	E
I-5 north of Crown Valley Pkwy	No Project	Northbound	5+1H	11,600	9,240	0.80	D	9,910	0.85	D
		Southbound	5+1H	11,600	9,500	0.82	D	10,470	0.90	E
	Project Scenario 1	Northbound	5+1H	11,600	9,250	0.80	D	9,920	0.86	D
		Southbound	5+1H	11,600	9,500	0.82	D	10,480	0.90	E
	Project Scenario 2	Northbound	5+1H	11,600	9,250	0.80	D	9,920	0.86	D
		Southbound	5+1H	11,600	9,500	0.82	D	10,480	0.90	E
	Project Scenario 3	Northbound	5+1H	11,600	9,260	0.80	D	9,920	0.86	D
		Southbound	5+1H	11,600	9,500	0.82	D	10,490	0.90	E
I-5 south of Crown Valley Pkwy	No Project	Northbound	5+1H	11,600	7,150	0.62	C	7,580	0.65	C
		Southbound	5+1H	11,600	7,170	0.62	C	7,920	0.68	C
	Project Scenario 1	Northbound	5+1H	11,600	7,160	0.62	C	7,580	0.65	C
		Southbound	5+1H	11,600	7,170	0.62	C	7,930	0.68	C
	Project Scenario 2	Northbound	5+1H	11,600	7,160	0.62	C	7,580	0.65	C
		Southbound	5+1H	11,600	7,170	0.62	C	7,930	0.68	C
	Project Scenario 3	Northbound	5+1H	11,600	7,160	0.62	C	7,580	0.65	C
		Southbound	5+1H	11,600	7,170	0.62	C	7,930	0.68	C

TABLE 4.9-17
LONG-RANGE WITHOUT STATE ROUTE 241 TOLL ROAD EXTENSION
FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Junipero Serra Rd	No Project	Northbound	5+1H	11,600	11,180	0.96	E	10,480	0.90	E
		Southbound	5+1H	11,600	9,620	0.83	D	11,210	0.97	E
	Project Scenario 1	Northbound	5+1H	11,600	11,190	0.96	E	10,490	0.90	E
		Southbound	5+1H	11,600	9,620	0.83	D	11,220	0.97	E
	Project Scenario 2	Northbound	5+1H	11,600	11,190	0.96	E	10,490	0.90	E
		Southbound	5+1H	11,600	9,620	0.83	D	11,220	0.97	E
	Project Scenario 3	Northbound	5+1H	11,600	11,200	0.97	E	10,490	0.90	E
		Southbound	5+1H	11,600	9,620	0.83	D	11,230	0.97	E
I-5 north of Ortega Hwy	No Project	Northbound	5+1H	11,600	10,810	0.93	E	9,750	0.84	D
		Southbound	5+1H	11,600	8,830	0.76	D	10,590	0.91	E
	Project Scenario 1	Northbound	5+1H	11,600	10,820	0.93	E	9,760	0.84	D
		Southbound	5+1H	11,600	8,830	0.76	D	10,600	0.91	E
	Project Scenario 2	Northbound	5+1H	11,600	10,820	0.93	E	9,760	0.84	D
		Southbound	5+1H	11,600	8,830	0.76	D	10,600	0.91	E
	Project Scenario 3	Northbound	5+1H	11,600	10,830	0.93	E	9,760	0.84	D
		Southbound	5+1H	11,600	8,830	0.76	D	10,610	0.91	E
I-5 south of Ortega Hwy	No Project	Northbound	4+1H	9,600	9,720	1.01	F	8,510	0.89	D
		Southbound	4+1H	9,600	7,670	0.80	D	9,360	0.98	E
	Project Scenario 1	Northbound	4+1H	9,600	9,720	1.01	F	8,510	0.89	D
		Southbound	4+1H	9,600	7,670	0.80	D	9,360	0.98	E
	Project Scenario 2	Northbound	4+1H	9,600	9,720	1.01	F	8,510	0.89	D
		Southbound	4+1H	9,600	7,670	0.80	D	9,360	0.98	E
	Project Scenario 3	Northbound	4+1H	9,600	9,720	1.01	F	8,510	0.89	D
		Southbound	4+1H	9,600	7,670	0.80	D	9,360	0.98	E

TABLE 4.9-17
LONG-RANGE WITHOUT STATE ROUTE 241 TOLL ROAD EXTENSION
FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 south of Camino Capistrano	No Project	Northbound	4+1H	9,600	9,630	1.00	E	8,750	0.91	E
		Southbound	5+1H	11,600	7,280	0.63	C	9,120	0.79	D
	Project Scenario 1	Northbound	4+1H	9,600	9,630	1.00	E	8,750	0.91	E
		Southbound	5+1H	11,600	7,280	0.63	C	9,120	0.79	D
	Project Scenario 2	Northbound	4+1H	9,600	9,630	1.00	E	8,750	0.91	E
		Southbound	5+1H	11,600	7,280	0.63	C	9,120	0.79	D
	Project Scenario 3	Northbound	4+1H	9,600	9,630	1.00	E	8,750	0.91	E
		Southbound	5+1H	11,600	7,280	0.63	C	9,120	0.79	D
SR-73 north of I-5	No Project	Northbound	3	6,000	3,940	0.66	C	3,160	0.53	C
		Southbound	3	6,000	2,410	0.40	B	3,880	0.65	C
	Project Scenario 1	Northbound	3	6,000	3,950	0.66	C	3,170	0.53	C
		Southbound	3	6,000	2,410	0.40	B	3,890	0.65	C
	Project Scenario 2	Northbound	3	6,000	3,950	0.66	C	3,170	0.53	C
		Southbound	3	6,000	2,410	0.40	B	3,890	0.65	C
	Project Scenario 3	Northbound	3	6,000	3,950	0.66	C	3,170	0.53	C
		Southbound	3	6,000	2,410	0.40	B	3,890	0.65	C
SR-241 north of Oso Pkwy	No Project	Northbound	2	4,000	1,780	0.45	B	700	0.18	A
		Southbound	2	4,000	680	0.17	A	1,720	0.43	B
	Project Scenario 1	Northbound	2	4,000	1,790	0.45	B	710	0.18	A
		Southbound	2	4,000	690	0.17	A	1,730	0.43	B
	Project Scenario 2	Northbound	2	4,000	1,790	0.45	B	710	0.18	A
		Southbound	2	4,000	690	0.17	A	1,730	0.43	B

TABLE 4.9-17
LONG-RANGE WITHOUT STATE ROUTE 241 TOLL ROAD EXTENSION
FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
	Project Scenario 3	Northbound	2	4,000	1,800	0.45	B	710	0.18	A
		Southbound	2	4,000	690	0.17	A	1,740	0.44	B

V/C: volume/capacity ratio; LOS: level of service; I: Interstate; H: high-occupancy vehicle lane; SR: State Route

Denotes a peak hour deficiency.

Source: Stantec 2016

TABLE 4.9-18
YEAR 2035 CUMULATIVE WITH STATE ROUTE 241 EXTENSION FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Oso Pkwy	No Project	Northbound	5+1H	11,600	10,180	0.88	D	9,780	0.84	D
		Southbound	5+1H	11,600	8,600	0.74	D	10,610	0.91	E
	Project Scenario 1	Northbound	5+1H	11,600	10,200	0.88	D	9,780	0.84	D
		Southbound	5+1H	11,600	8,600	0.74	D	10,630	0.92	E
	Project Scenario 2	Northbound	5+1H	11,600	10,200	0.88	D	9,780	0.84	D
		Southbound	5+1H	11,600	8,600	0.74	D	10,630	0.92	E
	Project Scenario 3	Northbound	5+1H	11,600	10,210	0.88	D	9,780	0.84	D
		Southbound	5+1H	11,600	8,600	0.74	D	10,640	0.92	E
I-5 north of Crown Valley Pkwy	No Project	Northbound	5+1H	11,600	8,720	0.75	D	9,240	0.80	D
		Southbound	5+1H	11,600	9,050	0.78	D	9,790	0.84	D
	Project Scenario 1	Northbound	5+1H	11,600	8,730	0.75	D	9,240	0.80	D
		Southbound	5+1H	11,600	9,050	0.78	D	9,800	0.84	D
	Project Scenario 2	Northbound	5+1H	11,600	8,730	0.75	D	9,240	0.80	D
		Southbound	5+1H	11,600	9,050	0.78	D	9,800	0.84	D
	Project Scenario 3	Northbound	5+1H	11,600	8,740	0.75	D	9,240	0.80	D
		Southbound	5+1H	11,600	9,050	0.78	D	9,810	0.85	D
I-5 south of Crown Valley Pkwy	No Project	Northbound	5+1H	11,600	6,510	0.56	C	6,770	0.58	C
		Southbound	5+1H	11,600	6,550	0.56	C	7,120	0.61	C
	Project Scenario 1	Northbound	5+1H	11,600	6,520	0.56	C	6,770	0.58	C
		Southbound	5+1H	11,600	6,550	0.56	C	7,130	0.61	C
	Project Scenario 2	Northbound	5+1H	11,600	6,520	0.56	C	6,770	0.58	C
		Southbound	5+1H	11,600	6,550	0.56	C	7,130	0.61	C
	Project Scenario 3	Northbound	5+1H	11,600	6,520	0.56	C	6,770	0.58	C
		Southbound	5+1H	11,600	6,550	0.56	C	7,130	0.61	C

TABLE 4.9-18
YEAR 2035 CUMULATIVE WITH STATE ROUTE 241 EXTENSION FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Junipero Serra Rd	No Project	Northbound	5+1H	11,600	10,360	0.89	D	9,420	0.81	D
		Southbound	5+1H	11,600	8,810	0.76	D	10,140	0.87	D
	Project Scenario 1	Northbound	5+1H	11,600	10,370	0.89	D	9,430	0.81	D
		Southbound	5+1H	11,600	8,810	0.76	D	10,150	0.88	D
	Project Scenario 2	Northbound	5+1H	11,600	10,370	0.89	D	9,430	0.81	D
		Southbound	5+1H	11,600	8,810	0.76	D	10,150	0.88	D
	Project Scenario 3	Northbound	5+1H	11,600	10,380	0.89	D	9,430	0.81	D
		Southbound	5+1H	11,600	8,810	0.76	D	10,160	0.88	D
I-5 north of Ortega Hwy	No Project	Northbound	5+1H	11,600	10,030	0.86	D	8,740	0.75	D
		Southbound	5+1H	11,600	8,050	0.69	C	9,550	0.82	D
	Project Scenario 1	Northbound	5+1H	11,600	10,040	0.87	D	8,750	0.75	D
		Southbound	5+1H	11,600	8,050	0.69	C	9,560	0.82	D
	Project Scenario 2	Northbound	5+1H	11,600	10,040	0.87	D	8,750	0.75	D
		Southbound	5+1H	11,600	8,050	0.69	C	9,560	0.82	D
	Project Scenario 3	Northbound	5+1H	11,600	10,050	0.87	D	8,750	0.75	D
		Southbound	5+1H	11,600	8,050	0.69	C	9,570	0.83	D
I-5 south of Ortega Hwy	No Project	Northbound	4+1H	9,600	8,640	0.90	E	7,270	0.76	D
		Southbound	4+1H	9,600	6,690	0.70	C	8,060	0.84	D
	Project Scenario 1	Northbound	4+1H	9,600	8,640	0.90	E	7,270	0.76	D
		Southbound	4+1H	9,600	6,690	0.70	C	8,060	0.84	D
	Project Scenario 2	Northbound	4+1H	9,600	8,640	0.90	E	7,270	0.76	D
		Southbound	4+1H	9,600	6,690	0.70	C	8,060	0.84	D
	Project Scenario 3	Northbound	4+1H	9,600	8,640	0.90	E	7,270	0.76	D
		Southbound	4+1H	9,600	6,690	0.70	C	8,060	0.84	D

TABLE 4.9-18
YEAR 2035 CUMULATIVE WITH STATE ROUTE 241 EXTENSION FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 south of Camino Capistrano	No Project	Northbound	4+1H	9,600	8,530	0.89	D	7,460	0.78	D
		Southbound	5+1H	11,600	6,230	0.54	C	7,610	0.66	C
	Project Scenario 1	Northbound	4+1H	9,600	8,530	0.89	D	7,460	0.78	D
		Southbound	5+1H	11,600	6,230	0.54	C	7,610	0.66	C
	Project Scenario 2	Northbound	4+1H	9,600	8,530	0.89	D	7,460	0.78	D
		Southbound	5+1H	11,600	6,230	0.54	C	7,610	0.66	C
	Project Scenario 3	Northbound	4+1H	9,600	8,530	0.89	D	7,460	0.78	D
		Southbound	5+1H	11,600	6,230	0.54	C	7,610	0.66	C
SR-73 north of I-5	No Project	Northbound	3	6,000	3,730	0.62	C	2,840	0.47	B
		Southbound	3	6,000	2,240	0.37	B	3,540	0.59	C
	Project Scenario 1	Northbound	3	6,000	3,740	0.62	C	2,850	0.48	B
		Southbound	3	6,000	2,240	0.37	B	3,550	0.59	C
	Project Scenario 2	Northbound	3	6,000	3,740	0.62	C	2,850	0.48	B
		Southbound	3	6,000	2,240	0.37	B	3,550	0.59	C
	Project Scenario 3	Northbound	3	6,000	3,740	0.62	C	2,850	0.48	B
		Southbound	3	6,000	2,240	0.37	B	3,550	0.59	C
SR-241 north of Oso Pkwy	No Project	Northbound	3	6,000	2,990	0.50	B	2,650	0.44	B
		Southbound	3	6,000	2,020	0.34	B	3,320	0.55	C
	Project Scenario 1	Northbound	3	6,000	3,020	0.50	B	2,660	0.44	B
		Southbound	3	6,000	2,030	0.34	B	3,340	0.56	C
	Project Scenario 2	Northbound	3	6,000	3,030	0.51	C	2,660	0.44	B
		Southbound	3	6,000	2,030	0.34	B	3,340	0.56	C
	Project Scenario 3	Northbound	3	6,000	3,050	0.51	C	2,670	0.45	B
		Southbound	3	6,000	2,030	0.34	B	3,350	0.56	C

TABLE 4.9-18
YEAR 2035 CUMULATIVE WITH STATE ROUTE 241 EXTENSION FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 south of Oso Pkwy	No Project	Northbound	3	6,000	3,060	0.51	C	3,150	0.53	C
		Southbound	3	6,000	2,340	0.39	B	3,800	0.63	C
	Project Scenario 1	Northbound	3	6,000	3,120	0.52	C	3,180	0.53	C
		Southbound	3	6,000	2,350	0.39	B	3,850	0.64	C
	Project Scenario 2	Northbound	3	6,000	3,140	0.52	C	3,190	0.53	C
		Southbound	3	6,000	2,350	0.39	B	3,860	0.64	C
	Project Scenario 3	Northbound	3	6,000	3,170	0.53	C	3,200	0.53	C
		Southbound	3	6,000	2,360	0.39	B	3,880	0.65	C
SR-241 south of Chiquita Canyon Rd/Grandeza Dr	No Project	Northbound	3	6,000	2,130	0.36	B	2,410	0.40	B
		Southbound	3	6,000	1,880	0.31	B	2,650	0.44	B
	Project Scenario 1	Northbound	3	6,000	2,150	0.36	B	2,420	0.40	B
		Southbound	3	6,000	1,890	0.32	B	2,670	0.45	B
	Project Scenario 2	Northbound	3	6,000	2,160	0.36	B	2,420	0.40	B
		Southbound	3	6,000	1,890	0.32	B	2,680	0.45	B
	Project Scenario 3	Northbound	3	6,000	2,170	0.36	B	2,420	0.40	B
		Southbound	3	6,000	1,890	0.32	B	2,690	0.45	B
SR-241 north of Avenida Pico	No Project	Northbound	3	6,000	2,030	0.34	B	2,340	0.39	B
		Southbound	3	6,000	1,760	0.29	A	2,580	0.43	B
	Project Scenario 1	Northbound	3	6,000	2,040	0.34	B	2,340	0.39	B
		Southbound	3	6,000	1,760	0.29	A	2,590	0.43	B
	Project Scenario 2	Northbound	3	6,000	2,040	0.34	B	2,340	0.39	B
		Southbound	3	6,000	1,760	0.29	A	2,590	0.43	B
	Project Scenario 3	Northbound	3	6,000	2,040	0.34	B	2,340	0.39	B
		Southbound	3	6,000	1,760	0.29	A	2,590	0.43	B

TABLE 4.9-18
YEAR 2035 CUMULATIVE WITH STATE ROUTE 241 EXTENSION FREEWAY/TOLL ROAD MAINLINE LEVEL OF SERVICE SUMMARY

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 south of Avenida Pico	No Project	Northbound	3	6,000	1,700	0.28	A	1,900	0.32	B
		Southbound	3	6,000	1,260	0.21	A	2,260	0.38	B
	Project Scenario 1	Northbound	3	6,000	1,700	0.28	A	1,900	0.32	B
		Southbound	3	6,000	1,260	0.21	A	2,260	0.38	B
	Project Scenario 2	Northbound	3	6,000	1,700	0.28	A	1,900	0.32	B
		Southbound	3	6,000	1,260	0.21	A	2,260	0.38	B
	Project Scenario 3	Northbound	3	6,000	1,700	0.28	A	1,900	0.32	B
		Southbound	3	6,000	1,260	0.21	A	2,260	.038	B

V/C: volume/capacity ratio; LOS: level of service; I: Interstate; H: high-occupancy vehicle lane; SR: State Route
Source: Stantec 2016

Pedestrian and Bicycle Paths

As discussed in Section 4.8, Recreation, in addition to the regional riding and hiking trails, there are three planned community trails and a multi-purpose pathway that will be provided in the Ranch Plan Planned Community development. The Affordable Housing sites are being planned in conjunction with the rest of the Ranch Plan Planned Community; therefore, there would no elements of the Project that would preclude the future implementation of these facilities as part of the Ranch Plan. Similarly, the Ranch Plan provides for bicycle trails throughout the planned community. There would be no element of the Project that would preclude the implementation of the planned regional and local bicycle paths and trails. These amenities would be provided in conjunction of the Ranch Plan and would not be a responsibility of the Affordable Housing Project. Impacts would be less than significant and would not require mitigation.

Mass Transit

OCTA would be the transit provider to the Project site. Currently the site is undeveloped; therefore, there is no transit service. The closest transit service is in the vicinity of Ortega Highway and Rancho Viejo Road (near I-5). OCTA would be the agency with authority to determine if the extension of the transit network to service the Ranch Plan community is appropriate at some future date. The Affordable Housing sites are being planned in conjunction with the rest of the Ranch Plan Planned Community. No elements of the Project would preclude future transit service. Impacts would be less than significant and would not require mitigation.

Impact Conclusion: *The Project development scenarios would contribute traffic to the existing and future circulation system; however, none of the Project development scenarios would cause any intersections, freeway/toll road ramps, or freeway/toll road mainline segments to operate at unacceptable levels of service. The Project development scenarios would not result in any direct impact on pedestrian and bicycle paths or mass transit services. Impacts pursuant to Threshold 4.9-1 for the Project development scenarios would be less than significant and would not require mitigation.*

No Project Alternative

The No Project Alternative would not result in the construction of any new affordable housing units; therefore, no additional trips would be generated and there would be no impacts to the local circulation system. As shown previously in Tables 4.9-7 through 4.9-18, the No Project Alternative would not impact any intersections, freeway/toll road ramps, or freeway/toll road ramps, or cause them to operate at unacceptable levels of service; therefore, no impact would occur with the No Project Alternative. Though Affordable Housing would not be constructed on the Affordable Housing sites, these sites would be likely developed with planned land uses permitted by the Ranch Plan Planned Community. As such, the planned improvements for pedestrian and bicycle paths would still be implemented. Similarly, the No Project Alternative would not preclude future transit service to the area should OCTA determine the extension of the transit network is appropriate.

Impact Conclusion: *The No Project Alternative would not cause any intersections, freeway/toll road ramps, or freeway/toll road ramps to operate at unacceptable levels of service. The No Project Alternative would not result in any direct impact on*

pedestrian and bicycle paths or mass transit services. No impact would occur with the No Project Alternative pursuant to Threshold 4.9-1 and no mitigation is required.

Threshold 4.9-2

Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Project Development Scenarios

The OCTA, as the agency with jurisdiction over the CMP, OCTA implemented an ICU monitoring method for measuring the LOS at CMP Highway System (CMPHS) intersections. There are no CMPHS intersections in the Ranch Plan. In the Project traffic study area, there are four CMP intersections: (1) Crown Valley Parkway and the I-5 southbound ramps; (2) Crown Valley Parkway and the I-5 northbound ramps; (3) Ortega Highway and the I-5 southbound ramps; and (4) Ortega Highway and the I-5 northbound ramps.

The impact threshold for the freeway and toll road mainlines reflects the three percent change in the LOS established as part of the CMP as the basis for determining a significant impact. As discussed under Threshold 4.9-1, none of these CMPHS intersections would be impacted by the Project development scenarios. The V/C ratios would be the same as the No Project Alternative for all the Project development scenarios. Therefore, the Project would not have a direct impact or significantly alter the demand on a CMP roadway. The Project development scenarios would not result in a conflict with the CMP and impacts would be less than significant and no mitigation is required.

Impact Conclusion: *The Project development scenarios would not conflict with the CMP because it would not change the LOS or V/C ratios at any of the CMP intersections or create substantial increased demand on a CMP roadway. Impacts would be less than significant pursuant to Threshold 4.9-2 and would not require mitigation.*

No Project Alternative

The No Project Alternative would not result in the construction of any new Affordable Housing units; therefore, no trips would be generated and there would be no impacts to the local circulation system or conflict with the CMP.

Impact Conclusion: *The No Project Alternative would not conflict with the CMP because it would not add trips to CMP intersections or create substantial increased demand on a CMP roadway. There would be no impacts pursuant to Threshold 4.9-2 and would not require mitigation.*

4.9.6 CUMULATIVE IMPACTS

Cumulative traffic impacts consider the impacts of future growth and development in unincorporated Orange County, specifically the Ranch Plan Planned Community and developments in the surrounding jurisdictions on the roadway system serving the area. The analyses of Year 2035 conditions, provided above, evaluates the cumulative impacts of the Project, including to CMP facilities. As identified in the analysis presented under Thresholds 4.9-1 and 4.9-2, the proposed Project would not result in significant cumulative impacts under the long-range (2035) either with or without the SR-241 extension for any of the Project development scenarios or the No Project Alternative. The V/C ratios at the two locations with identified deficiencies in the long-range scenarios (Valle and San Juan Creek Road and the Crown Valley Parkway at I-5 direct northbound on-ramp) would not change with any of the Project development scenarios; therefore, the Project does not contribute to the cumulative deficiency. Therefore, no cumulative impacts would occur with any of the development scenarios or the No Project Alternative.

4.9.7 MITIGATION PROGRAM

Standard Conditions and Requirements

SC TRANS-1 Prior to the issuance of building permits, the Applicant shall pay applicable fees for the Major Thoroughfare and Bridge Fee Program listed below, in a manner meeting the approval of the Manager, Permit Services.

a. Foothill/Eastern Transportation Corridor

b. SCRIP

(Based on County Standard Condition T08; modified to include SCRIP, which would be applicable based on location.)

Mitigation Measures

No significant impacts are identified related to Transportation/Traffic for any of the Project development scenarios; therefore, no mitigation measures are required.

4.9.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the Project development scenarios would result in less than significant impacts and no mitigation is required.

Implementation of the No Project Alternative would result in no impact and no mitigation is required.

4.9.9 REFERENCES

Orange, County of. 2015 (May). *Initial Study, Notice of Preparation of a Program Environmental Impact Report 623, and Notice of Scoping Meeting for the Orange County Affordable Housing Implementation Program (IP#15-157).* Santa Ana, CA: County of Orange.

———. 2006 (July 18). Affordable Housing Implementation Agreement for Rancho Mission Viejo. Santa Ana, CA: the County.

Orange County Transportation Authority (OCTA). 2015 (November). *2015 Orange County Congestion Management Program.* Orange, CA: OCTA.

Stantec Consulting Services (Stantec). 2016 (January). *Orange County Affordable Housing Implementation Program Traffic Study.* Irvine, CA: Stantec.

4.10 UTILITIES AND SERVICE SYSTEMS

This section discusses Project-related impacts utilities and service systems, specifically associated with water resources (water and wastewater), The potential impacts of the Project were evaluated in detail in the Orange County Affordable Housing Implementation Program Water Supply Assessment, prepared by Psomas and dated June 2016 and is provided in Appendix F of this EIR.

4.10.1 REGULATORY SETTING

State

Urban Water Management Planning Act

The California Urban Water Management Planning Act (*California Water Code,* Sections 10610–10656) requires urban water suppliers to develop urban water management plans. While generally aimed at encouraging water suppliers to implement water conservation measures, it also creates long-term planning obligations. The Urban Water Management Planning Act requires urban water suppliers that either provide over 3,000 acre-feet (af) of water annually or serve 3,000 or more connections to assess the reliability of its water sources over a 20-year planning horizon. The Act requires water suppliers to prepare, and update every five years, Urban Water Management Plans (UWMPs). In preparing their 20-year UWMPs, water suppliers must directly address the subject of future population growth. The suppliers must also identify sources of supply to meet demand during normal, dry, and multiple-dry years. For the 2015 UWMP, water agencies must demonstrate compliance with their established water use target for 2015, which will also demonstrate whether the agency is currently on track to achieve its 2020 target.

Senate Bill 610

Senate Bill (SB) 610 amended State law to improve the link between information on water supply availability and certain land use decisions made by Cities and Counties.[1] Specifically, it requires land use planning entities (in this case, the County of Orange), when evaluating developments of a certain size or larger, to request an assessment of water supply availability from the water supply entity that would provide water to a project. A water supply assessment (WSA) must be prepared in conjunction with the land use approval process associated with a project, and must include an evaluation of the sufficiency of the water supplies available to the water supplier to meet existing and anticipated future demands, including the demand associated with the project in question, over a 20-year horizon that includes normal, single-dry, and multiple-dry years. An SB 610 WSA is required for any "project" that is subject to the California Environmental Quality

[1] SB 610 amended Section 21151.9 of the *California Public Resources Code,* and amended Sections 10631, 10656, 10910, 10911, 10912, and 10915 of, repealed Section 10913 of, and added and amended Section 10657 of the *California Water Code.* In 2011 when SB 610 was approved, SB 221 was also passed. SB 221, which appended Section 66473.7 of the Government Code, requires Water Supply Verifications (WSV) at the time the tentative tract map is processed. However, an exemption is provided for housing projects that are exclusively for very low and low-income households. Therefore, SB 221 does not apply to this Project.

Act (CEQA) and that proposes, among other things, a residential project of more than 500dwelling units.

Regional

Santa Margarita Water District Urban Water Management Plan

The Santa Margarita Water District (SMWD) adopted its 2015 Urban Water Management Plan (UWMP) on June 1, 2016, in compliance with the Urban Water Management Planning Act. The UWMP discusses SMWD's water system; existing, current, and future water demands in its service area; available water supplies; supply reliability; and water shortage contingency planning.

The SMWD's supplies include imported water, urban runoff, recycled water, and purchased groundwater supply to meet its water needs. System demands from 1990 to 2005 indicate a 15-year annual average of 211 gallons per capita per day (gpcd) and a 5-year average from 2004 to 2008 of 202 gpcd. Its interim target is 190 gpcd in 2015 and its final target is 169 gpcd in 2020.

The UWMP lists the demand management measures that SMWD is implementing to reduce water consumption and to promote conservation. It discusses SMWD's Comprehensive Water Conservation Program, which outlines actions and responses to specific levels of drought. It also mentions the Catastrophic Supply Interruption Plan, which identifies potential emergencies, causes, severity, and anticipated duration as well as SMWD's actions for alternative supplies and storage.

The UWMP indicates that the SMWD will have adequate water supplies to meet demands during normal, single-dry and multiple-dry years to 2040.

Santa Margarita Water District Sewer System Management Plan

The SMWD's Sewer System Management Plan (SSMP) discusses the sewerage facilities, operations and maintenance, and programs for monitoring and inspection; rehabilitation/replacement; overflow emergencies; fats, oils, and grease control; spill response; prevention of illicit discharges; audits; and communication. The SSMP also identifies capital improvement projects needed to increase the capacities of several sewer mains and to improve system reliability through new interceptor, bypass, and relief lines.

Comprehensive Water Conservation Program

SMWD's Board of Directors adopted its Comprehensive Water Conservation Program (Conservation Program) Ordinance No. 2014-10-03 on October 17, 2014. Along with permanent water conservation requirements, SMWD's Conservation Program consists of four rationing stages to respond to a reduction in potable water available to SMWD for distribution to its customers. In accordance with this ordinance, the SMWD Board has implemented Stage 2 water use restrictions (as declared by Resolution No. 2014-08-03), which shall remain in effect unless a mandatory conservation stage is implemented by the Board.

4.10.2 METHODOLOGY

The following water supply and wastewater analysis was prepared using information derived from the following resources:

- Orange County Affordable Housing Implementation Program Water Supply Assessment, prepared by Psomas and dated June 2016 and is provided in Appendix F of this EIR.
- Santa Margarita Water District 2015 Urban Water Management Plan, prepared by Arcadis and dated June 2016
- Santa Margarita Water District Sewer System Management Plan, prepared by SMWD and dated January 2015
- Chiquita Water Reclamation Plant Expansion Final Initial Study and Mitigated Negative Declaration, prepared by BonTerra Psomas and dated December 20, 2013 (revised February 5, 2014)

4.10.3 EXISTING CONDITIONS

Water Supply

The SMWD is the second largest retail water agency in Orange County, providing water and wastewater services to over 155,000 customers. The SMWD service area includes the cities of Mission Viejo and Rancho Santa Margarita as well as the unincorporated areas of Coto de Caza, Las Flores, Ladera Ranch, Talega, and the Ranch Plan Planned Community (Ranch Plan). The SMWD is a member agency of the Metropolitan Water District of Orange County (MWDOC), a consortium of 28 cities and water districts that supplies imported water, including water from the State Water Project (SWP) (SMWD 2011). The SMWD's main source of water supply to meet demand is imported water from Metropolitan Water District of Southern California (Metropolitan) via purchases from MWDOC. Imported water is supplemented by recycled water and minor local groundwater supply from the San Juan Basin. Currently, SMWD relies on approximately 78 percent imported water (26,910 acre-feet per year [afy]) and 22 percent recycled water (7,495 afy), (Psomas 2016).

Imported Water

The SMWD currently relies heavily on imported water wholesaled by Metropolitan through MWDOC. In Fiscal Year 2009–2010, Metropolitan's principal sources of water originated from two sources: the Colorado River via the Colorado Aqueduct and the Lake Oroville Watershed in Northern California via the SWP. This water is treated at the Robert B. Diemer Filtration Plant located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the Metropolitan Lower Feeder and SWP water through the Yorba Linda Feeder. The Allen-McColloch Pipeline (AMP) is SMWD's primary conduit of domestic water in which SMWD owns specified capacity rights for the delivery of water.

Recycled Water

Recycled water is the second largest contributor to the SMWD water supply. The SMWD owns and operates the Chiquita Water Reclamation Plant (CWRP) and the Oso Creek Water Reclamation Plant (OCWRP), which produce recycled water for irrigation and other non-domestic water uses in the District's recycled water system service areas. The SMWD also plans to construct new recycled water storage facilities.

Groundwater

San Juan Creek Watershed

The SMWD overlies the San Juan Creek Watershed, which is bound on the west by the Pacific Ocean and otherwise by tertiary semi-permeable marine deposits. The San Juan Creek Watershed includes San Juan Creek, Oso Creek, Trabuco Creek, Cañada Gobernadora, and Bell Canyon. The State Water Resources Control Board (SWRCB) has determined that the watershed is not a groundwater basin, but a surface and underground flowing stream and, therefore, it is subject to SWRCB jurisdiction and its processes with respect to the appropriation and use of waters in the watershed (Psomas 2016).

The SMWD is a member of the San Juan Basin Authority (SJBA), which is a joint powers agency formed to manage the watershed. Other member agencies include the City of San Juan Capistrano, the Moulton Niguel Water District, and South Coast Water District. The SJBA has an SWRCB Permit for Diversion and Use of Water (Permit No. 21074) for appropriation and diversion of up to 8,026 afy, with the ability to increase to 10,702 afy upon demonstration of sufficient availability of unappropriated water. As a member of the SJBA, the SMWD is entitled to participate in the development of projects to appropriate and divert water from the San Juan Watershed. Additionally, return imported flows, defined as water imported by the SMWD from outside the drainage basin (water purchased from Metropolitan), that are used within the basin can be collected by SMWD for reuse.

Other Sources of Groundwater

Additional sources of groundwater include the Oso Creek Barrier in Mission Viejo—which is operated during non-storm periods and produces approximately one million gallon per day (mgd) of water when operational—yielding 858 afy on a reliable basis. The SMWD also has limited access to pumped groundwater supply from the San Juan Creek Watershed via Well No. 6, which has a capacity of 150 afy. Additionally, the SMWD has an agreement to receive a minimum of 400 acre-feet of water annually from the Rancho Mission Viejo Mutual Water Company (RMV MWC). The non-domestic water will be used by the SMWD within their recycled water system to primarily service irrigation demands in the Ranch Plan. Non-domestic water supply from the RMV MWC could reach a maximum 2,500 afy by 2030. The RMV MWC has also completed construction of a pump station in Chiquita Canyon to supply SMWD with up to 500 gallons per minute (gpm) of non-potable water from the Rancho Mission Viejo well system, which extracts water from the San Juan Creek Watershed. The pump station can be expanded to 1,000 gpm in the future.

Santa Margarita Water District Infrastructure

The SMWD provides water and wastewater services to the Project area. The Ranch Plan is included in SMWD's Improvement Districts4C, 4E, 5, and 6. In conjunction with the approval of the Ranch Plan, a Plan of Works was developed to identify the necessary domestic water, non-domestic water, and wastewater systems necessary to service the Ranch Plan. The Plan of Works, initially approved in November 2003, has been updated in August 2006 and most recently in 2013. The primary purpose of the revised Plan of Works is to address a number of technical issues including:

- Maximizing gravity feed of the water supply from the South County Pipeline and the Upper Chiquita Reservoir;
- Integrating the proposed Ortega Recycled Water Storage Reservoir into the planned recycled water system;
- Siting of the proposed water distribution system storage facilities;
- Utilizing existing SMWD facilities where feasible to avoid the construction of unnecessary duplicate facilities.

The Plan of Works addresses domestic and recycled water supply, transmission and storage facilities as well as the wastewater collection, treatment and disposal facilities to be constructed by the SMWD to serve planned developments (SMWD 2013).

In addition to the comprehensive Plan of Works, focused Plan of Works have been prepared for Planning Area 1 and Planning Area 2. As development proceeds into the remaining Ranch Plan development areas Plans of Work will be prepared to confirm the development demands and basic system configuration for the entire Planning Area (backbone pipelines, pump and pressure reducing stations, reservoirs, lift stations, and pipeline turnouts).

Water Conveyance Facilities

Consistent with the requirements of the Affordable Housing Implementation Agreement (AHIA), development of the proposed Affordable Housing units within each respective Planning Area of the Ranch Plan would not occur until necessary infrastructure is constructed. Therefore, construction of water infrastructure would be phased concurrent with construction of the Ranch Plan to maintain minimum service requirements. As such, the Alternative CEQA Baseline condition for the Project assumes all required water infrastructure as "existing" (see Section 3.4.4 for further discussion of the Alternative CEQA Baseline).

Wastewater Facilities

Similar to the water infrastructure, development of the proposed Affordable Housing units within each respective Planning Area of the Ranch Plan would not occur until all necessary infrastructure is constructed, which will be done in conjunction with the Ranch Plan development. Therefore, construction of sewer infrastructure, including any improvements needed for wastewater treatment facilities, would be phased concurrent with construction of the Ranch Plan to maintain minimum service requirements. Consistent with the Alternative CEQA Baseline condition for the Project assumes all required sewer infrastructure as "existing".

The SMWD's sewer system conveys wastewater to the CWRP, which is owned and operated by the SMWD. Currently, the CWRP has the capacity for preliminary, primary, secondary, and tertiary wastewater treatment for flows up to 9.0 million gallon per day (mgd). In 1984, the CWRP was originally approved for an ultimate primary/secondary treatment capacity of 18.0 mgd. Improvements would be phased based on demand. In February 2014, the SMWD Board of Directors approved a planned expansion of the CWRP facility that would increase capacity to 10.5 mgd.[2]

4.10.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist, the Project would result in a significant impact related to utilities and service systems if it would:

Threshold 4.10-1 Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Threshold 4.10-2 Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts.

Threshold 4.10-3 Have insufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed.

Threshold 4.10-4 Result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

As discussed in Section 2.3.1, Issues to be Addressed in the Environmental Impact Report, the thresholds pertaining to storm water drainage facility; landfill; solid waste compliance were focused out of the EIR at the time the Notice of Preparation was issued.

4.10.5 IMPACT ANALYSIS

Threshold 4.10-1

Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

All Project Scenarios

The San Diego RWQCB is the applicable RWQCB for the Project area. Waste Discharge Requirements are issued by the San Diego RWQCB under the provisions of the *California Water Code* (specifically, Division 7 Water Quality, Article 4 Waste Discharge Requirements). The

[2] Environmental compliance for the expansion of the CWRP has been addressed through a separate CEQA document (a Mitigated Negative Declaration) approved by the SMWD Board of Directors in February 2014. The improvements would predominately occur within the existing development footprint of the CWRP.

SMWD would provide sanitary sewer service to the Project. As previously indicated, a requirement of the AHIA is that RMV provide the necessary utilities infrastructure to service the Project sites. Wastewater conveyance facilities are identified as part of the Master Area Plan and Subarea Plans for each of the Planning Areas. As previously mentioned elsewhere in this EIR, the Master Area Plan and Subarea Plans for Planning Areas 3 and 4 have been approved by the County and the plans for Planning Areas 5 and 8 will be processed at some future date. As part of the construction of each of the Ranch Plan Planning Areas, the wastewater facilities would be required to be constructed to collect sewage flows emanating from all development areas of the Ranch Plan, including the Project sites, then pump it to the CWRP located near Planning Area 2. As indicated under Existing Conditions, in conjunction with the development of Planning Areas 3, 4, 5, and 8 of the Ranch Plan, RMV would coordinate with SMWD on the preparation of a Plan of Work to confirm the development demands and basic system configuration (backbone pipelines, pump and pressure reducing stations, reservoirs, lift stations, and pipeline turnouts) within each Planning Area. RMV has indicated the Affordable Housing sites and development at a density of 25 dwelling units per acre would be incorporated into the future Plan of Works to ensure appropriate sizing of facilities (RMV 2016).

Wastewater would be treated at the CWRP, which is designed to meet all applicable San Diego RWQCB water standards. As noted previously, the approved expansion of the CWRP would increase the secondary treatment system from its current permit capacity of 9.0 MGD up to the projected future flow of 10.5 MGD. Additionally, the tertiary treatment capacity to produce Title 22 reclaimed water for recycling and reuse will be expanded from its current permit capacity of 5.0 MGD up to the projected future flow of 10.5 MGD. In compliance with Section 4.(g)(iii) of the AHIA, RMV would be required to construct the utility infrastructure to serve the entire Ranch Plan, including the Project sites. As indicated above, the review of the sizing and configuration of the system would be done as part of the Plan of Works developed for each Planning Area. The Affordable Housing development would be incorporated into the Plan of Works. The Project would connect to the infrastructure serving the Ranch Plan, including the necessary wastewater conveyance facilities, such as lift stations and sewer lines. SMWD's Standard Design requirements would be applicable to ensure wastewater discharge standards are complied with. Since all wastewater flows from the Project would be directed to the CWRP, which is also designed to comply with all applicable wastewater discharge requirements, as enforced by the San Diego RWQCB, implementation of the Project scenarios would not result in an exceedance of wastewater treatment requirements and impacts would be less than significant and no mitigation measures are required.

Impact Conclusion: *Wastewater discharge associated with the Project would be directed to the SMWD CWRP, which has been designed and constructed to comply with all applicable wastewater discharge requirements, as enforced by the San Diego RWQCB. Therefore, the Project's impacts would be less than significant pursuant to Threshold 4.10-1 and no mitigation measures are required.*

No Project Alternative

With the No Project Alternative, no Affordable Housing as part of the proposed Project. Thus, there would be no Project-derived wastewater that could potentially exceed RWQCB wastewater treatment requirements. Even with the No Project Alternative, the planned improvements to the CWRP would occur because they are intended to serve the District-wide future demand and are not tied to the Project.

Impact Conclusion: *With the No Project Alternative, there would be no additional wastewater created; therefore, this alternative would not exceed RWQCB wastewater treatment requirements. There would be no impacts pursuant to Threshold 4.10-1 for the No Project Alternative and no mitigation measures are required.*

Thresholds 4.10-2 and 4.10-4

Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?

Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

All Project Development Scenarios

Water and wastewater services would be provided by the SMWD. As discussed previously in Section 4.10.3, Existing Conditions, construction of water and sewer infrastructure would be phased concurrent with construction of the Ranch Plan to provide adequate capacity to serve the Ranch Plan development and maintain minimum service requirements. Section 4.(g)(iii) of the AHIA requires that RMV provide the County with the opportunity to obtain utility service (water, sewer, electricity, gas, telephone and cable) by ensuring utility service for the Affordable Housing sites by either (i) installing a lateral that extends from the Project sites to a main trunk line, or (ii) extending a trunk line by no more than 400 yards and, if necessary, connecting a lateral to the extended trunk line. Therefore, the Alternative CEQA Baseline Condition (as discussed in Section 3.4.4 of this EIR) for the Project assumes all key water and sewer conveyance infrastructure needed to serve the Ranch Plan area, including the Project sites, would be existing at the time the Project would be constructed (regardless of whether the Project is constructed). The impacts of providing the infrastructure required for the Ranch Plan have been addressed as part of FEIR 589.

The connection internal to each Affordable Housing site (i.e., the collection and distribution facilities for each individual development) to the Ranch Plan infrastructure would occur in the graded areas set aside for development and likely be contained in local streets and driveways; therefore, no significant environmental impacts would occur related to the construction of water or wastewater treatment facilities.

In conjunction with the preparation of FEIR 589, SMWD prepared and approved a *Plan of Works* to identify the necessary improvements to serve the Ranch Plan. The *Plan of Works* identifies the general location, type and capacity of the proposed water and wastewater facilities and improvements. These improvements have been addressed in FEIR 589. This information is further refined as part of the Master Area Plan and Subarea Plans, which require the identification of the Conceptual Domestic Water System, Conceptual Non-Domestic Water System, and Preliminary Wastewater System. The consistency of the infrastructure proposed as part of the Master Area Plans and Subarea Plans is evaluated for consistency with the assumptions in FEIR 589. The precise location and size of the facilities/improvements are determined at the time tentative tract maps are processed. Development of this infrastructure would occur within the Planning Area development boundaries or in the areas identified in FEIR 589 for infrastructure improvements.[3]

Based on the SMWD 2013 *Plan of Works*, apartments are projected to generate 175 gallons of wastewater per day per unit. This would equate to 97,125 gallons a day for Scenario 1; 129,500 gallons a day for Scenario 2; and 194,250 gallons a day for Scenario 3. Affordable Housing sites are identified at the Subarea Plan level; therefore, the additional units associated with the Project would be anticipated at the time the sewer and water infrastructure are design in each Planning Area. As a result, the improvements would be sized to accommodate the Affordable Housing units. As discussed above, the wastewater would be treated at the CWRP, which is approved to accommodate the projected future flow of 10.5 MGD independent of the Project. There would be sufficient capacity at the CWRP to accommodate the wastewater generated by the Project and impacts would be less than significant. Water capacity is discussed below under Threshold 4.10-3.

Infrastructure improvements would be located within the development areas or the infrastructure zones addressed in FEIR 589 and no additional impacts associated with the Project would be expected. Additionally, impacts related to the construction of new water or wastewater treatment facilities and provision of adequate capacity to serve the Project's projected demand would have been addressed as part of the environmental documentation for implementation of the Ranch Plan improvements. Therefore, impacts associated with construction of new water or wastewater treatment facilities or expansion of existing facilities would be less than significant and no mitigation measures are required.

Impact Conclusion: *With the ultimate improvements to the CWRP and the infrastructure improvements provided by RMV as part of the Ranch Plan pursuant to the AHIA, there would be sufficient capacity to meet system-wide demand. Construction of the new water or wastewater facilities would occur prior to implementation of the proposed Project and the environmental impacts have been addressed in FEIR 589 or previous environmental documents. Therefore, the Project's impacts pursuant to Thresholds 4.10-2 and 4.10-4 would be less than significant and no additional mitigation measures are required.*

[3] In addition to evaluating the impacts associated with the construction of the development portions of the Planning Areas (where residential and non-residential uses are proposed), FEIR 589 identified where utility infrastructure, such as but not limited to roads, utility lines, water reservoirs (potable and non-potable), lift stations, and storm water improvements (outlets and basins) would be required outside of the development areas. The grading and construction impacts were evaluated using typical design assumptions for such facilities overlaid over site conditions.

No Project Alternative

With the No Project Alternative, there would be no additional demands placed for water or wastewater treatment. Therefore, no impact related to the construction of new water or wastewater treatment facilities would occur and no mitigation measures would be required.

Impact Conclusion: *With the No Project Alternative, would not result in any additional demands on water or wastewater facilities. The planned improvements for the Ranch Plan would occur but there would be no need to accommodate additional flows associated with Affordable Housing. Therefore, there would be no impacts pursuant to Thresholds 4.10-2 and 4.10-4 and no mitigation would be required.*

Threshold 4.10-3

Would the Project have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

All Project Scenarios

The *Orange County Affordable Housing Implementation Program—The Ranch Plan Water Supply Assessment* (WSA) has been approved by SMWD in accordance with requirements of CEQA and *California Water Code* Section 10910 et seq. to determine there are adequate water supplies to serve the Project.

To ensure water demand of all dwelling units within the Ranch Plan are was accounted for in SMWD's 2015 UWMP, the WSA was prepared to address water availability to serve the Project under Scenario 3 (1,100 units, the highest number of proposed Project units), as well as the affordable housing units in Planning Areas 1 and 2.[4] Since Scenario 3 represents the maximum number of Affordable Housing units associated with the Project, this analysis adequately addresses all three Project scenarios. Table 4.10-1 provides a summary of projected SMWD water supplies for 2020 through 2040.

[4] A WSA was not required for the affordable housing developments in Planning Areas 1 and 2 because the total number of units is less than threshold identified in SB 610 (a 500 dwelling unit project). However, based on coordination with the County and SMWD, the units in Planning Areas 1 and 2 were included in the WSA prepared for the Project to facilitate the inclusion of the units in the 2015 UWMP.

TABLE 4.10.1
SANTA MARGARITA WATER DISTRICT NORMAL SUPPLIES
(2020–2040)

Year	Demand/Supply (afy) by Fiscal Year Ending				
	2020	**2025**	**2030**	**2035**	**2040**
Normal Supplies					
MWDOC	11,500	9,700	8,100	6,800	6,800
Baker WTP	9,400	9,400	9,400	9,400	9,400
Cadiz Recovery and Storage	5,000	5,000	5,000	5,000	5,000
Transfers – Emergency Storage	2,000	2,000	2,000	2,000	2,000
San Juan Basin IPR Groundwater	2,000	4,000	5,000	5,000	5,000
Recycled Water	8,000	9,000	10,000	10,000	10,000
Total Normal Supplies	**37,900**	**39,100**	**39,500**	**38,200**	**38,200**

afy: acre-feet per year; UWMP: Urban Water Management Plan; MWDOC: Metropolitan Water District of Orange County; WTP: Water Treatment Plant; RMV MWC: Rancho Mission Viejo Mutual Water Company; WRP: Water Reclamation Plant; CVWD: Capistrano Valley Water District; GSWC: Golden State Water Company; IRWD: Irvine Ranch Water District

Source: Psomas 2016

According to the WSA, at buildout, the Affordable Housing Project is estimated to require 275.7 afy of domestic water and 45.7 afy of non-domestic water (recycled water or non-potable groundwater). The WSA, which utilizes the SMWD domestic water-use factors, conservatively combines both domestic and non-domestic demands for a total water demand of 321 afy.[5] As shown in Table 4.10-2, the proposed Affordable Housing Project's calculated demands (using Scenario 3) represent less than one percent of the SMWD's total normal-year water demand (according to the 2015 UWMP). As shown, the SMWD has sufficient water supplies to meet normal-year demands through 2040.

[5] As previously indicated, the SMWD domestic water-use factors assumes 175 gallons per day per dwelling unit; 225 gpd per 1,000 square feet for the clubhouses, with for an average 5,000 sf clubhouse area; and pool water use of 45,000 gallons per year. This estimate is conservative based on current water usage in the District. In the 2015 UWMP, SMWD's per-capita water use was calculated to be 153 gpcd in fiscal year 2015, which is significantly lower than its 2015 target of 190 gpcd provided for in the Water Conservation Act of 2009. No domestic water usage is assumed for irrigation, which will utilize recycled water. It was estimated that irrigated areas would be equivalent to approximately 25 percent of the gross acreage.

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TABLE 4.10.2
SANTA MARGARITA WATER DISTRICT NORMAL SUPPLIES TO MEET NORMAL DEMANDS (2020–2040)

Year	Demand/Supply (afy) by Fiscal Year Ending				
	2020	**2025**	**2030**	**2035**	**2040**
Total Supplies	37,900	39,100	39,500	38,200	38,200
Total Demands	34,388	35,581	35,986	34,695	34,695
Supply Surplus	3,512	3,519	3,514	3,505	3,505

afy: acre-feet per year; UWMP: Urban Water Management Plan; MWDOC: Metropolitan Water District of Orange County; WTP: Water Treatment Plant; RMV MWC: Rancho Mission Viejo Mutual Water Company; WRP: Water Reclamation Plant; CVWD: Capistrano Valley Water District; GSWC: Golden State Water Company; IRWD: Irvine Ranch Water District

Source: Psomas 2016

As shown in Table 4.10-2, the SMWD would be able to meet normal water demands.

According to the WSA, the SMWD is 100 percent reliable for single dry-year demands from 2015 through 2040 (Psomas 2016). As shown in Table 4.10-3 and Table 4.10-4, respectively, single-dry year demands and multiple-dry year demands would be met with normal SMWD supplies, with surplus supplies still available.

TABLE 4.10.3
SANTA MARGARITA WATER DISTRICT NORMAL SUPPLIES TO MEET SINGLE-DRY YEAR DEMANDS (2020–2040)

Year	Demand/Supply (afy) by Fiscal Year Ending				
	2020	**2025**	**2030**	**2035**	**2040**
Total Supplies	37,900	39,100	39,500	38,200	38,200
Total Demands	35,764	37,004	37,425	36,083	36,083
Supply Surplus	2,136	2,096	2,075	2,117	2,117

afy: acre-feet per year; UWMP: Urban Water Management Plan; MWDOC: Metropolitan Water District of Orange County; WTP: Water Treatment Plant; RMV MWC: Rancho Mission Viejo Mutual Water Company; WRP: Water Reclamation Plant; CVWD: Capistrano Valley Water District; GSWC: Golden State Water Company; IRWD: Irvine Ranch Water District

Source: Psomas 2016

TABLE 4.10.4
SANTA MARGARITA WATER DISTRICT NORMAL SUPPLIES
TO MEET MULITPLE-DRY YEAR DEMANDS (2020–2040)

Year	Demand/Supply (afy) by Fiscal Year Ending				
	2020	**2025**	**2030**	**2035**	**2040**
First Year					
Total Supplies	37,900	39,100	39,500	38,200	38,200
Total Demands	35,076	36,293	36,706	35,389	35,389
Supply Surplus	2,824	2,807	2,794	2,811	2,811
Second Year					
Total Supplies	37,900	39,100	39,500	38,200	38,200
Total Demands	35,764	37,004	37,425	36,083	36,083
Supply Surplus	2,136	2,096	2,075	2,117	2,117
Third Year					
Total Supplies	37,900	39,100	39,500	38,200	38,200
Total Demands	37,483	38,783	39,225	37,818	37,818
Supply Surplus	417	317	275	382	382

afy: acre-feet per year; UWMP: Urban Water Management Plan; MWDOC: Metropolitan Water District of Orange County; WTP: Water Treatment Plant; RMV MWC: Rancho Mission Viejo Mutual Water Company; WRP: Water Reclamation Plant; CVWD: Capistrano Valley Water District; GSWC: Golden State Water Company; IRWD: Irvine Ranch Water District

Source: Psomas 2016

Impact Conclusion: *SMWD's approved WSA for the Project shows that the SMWD has available water supplies to meet the Project's water demands for more than the next 20 years (through 2040), including demands during normal, single-dry and multiple-dry years. Therefore, there would be available water supplies to serve any of the three Project scenarios. Impacts would be less than significant and no mitigation is required for Threshold 4.10-3.*

No Project Alternative

With the No Project Alternative, there would be no affordable housing units constructed that would draw from the SMWD water supply. As mentioned earlier, the 2010 UWMP was modified in 2014, and it is assumed that the modifications do not include the Project's water demands. Thus, the data provided in Tables 4.10-1 and 4.10-2 indicate that the SMWD would have adequate water supply if the Project was not built.

Impact Conclusion: *With the No Project Alternative, there would be no increased water demand because there would be no additional population. Therefore, there would be no impacts pursuant to Threshold 4.10-3.*

4.10.6 CUMULATIVE IMPACTS

Wastewater

The cumulative impact discussion considers the impacts of future growth and development in unincorporated Orange County within SMWD's service area, which is predominantly growth associated with the Ranch Plan. As discussed in the analysis of Thresholds 10-1, 10-2 and 10-4, the SMWD is in compliance with San Diego RWQCB requirements pertaining to wastewater. The 2015 UWMP, adopted by the SMWD Board on June 1, 2016, demonstrates that SMWD has sufficient capacity to meet the existing and future wastewater demands of its service area, including cumulative development associated with the proposed Project and the Ranch Plan. Additionally, the approved expansion of the CWRP, which is an SMWD project proposed to better serve SMWD's service area, would further address wastewater treatment needs of cumulative development. As such, the Project would not contribute to a significant cumulative impacts related to water or wastewater treatment facilities.

Water Supply

The cumulative impact discussion considers the impacts of future growth and development in unincorporated Orange County, within SMWD's service area, which is predominantly growth associated with the Ranch Plan. As discussed in the WSA, the SMWD's 2015 UWMP includes future growth within SMWD's service area, including the Ranch Plan and the Project. The anticipated demand evaluated in the 2015 UWMP includes cumulative growth projected by the Center for Demographic Research, which is consistent with OCP-2014. As discussed in the analysis for Threshold 4.10-3, the total water supplies available during normal, single-dry, and multiple-dry years would meet the projected water demand of existing and planned future uses within a 20-year timeframe (including the proposed Affordable Housing Project); this would occur with currently available supplies and additional supplies that are under development. Therefore, it is concluded that cumulative impacts related to water supply would be less than significant.

4.10.7 MITIGATION PROGRAM

Mitigation Measures

No significant impacts are identified related to utilities for any of the Project scenarios; therefore, no mitigation measures are required.

4.10.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to water supply and water and wastewater treatment facilities would be less than significant and no mitigation would be required.

4.10.9 REFERENCES

Cadiz. 2016 (January, access date). Cadiz Water Project. Los Angeles, CA. http://cadizinc.com/water-project/.

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5.0 ALTERNATIVES

5.1 INTRODUCTION

Section 15126.6(a)–(b) of the California Environmental Quality Act (CEQA) Guidelines (*California Code of Regulations* [CCR], Title 14) provides guidance on the range of alternatives to a proposed project that must be evaluated. The State CEQA Guidelines state the following:

> (a) Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The Lead Agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.
>
> (b) Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

5.2 CRITERIA FOR SELECTING ALTERNATIVES

Several criteria were used to select alternatives to the proposed Project. These criteria include the alternative's ability to achieve project objectives; the project's feasibility; and the project's ability to eliminate or reduce significant impacts. Each of these are described below.

5.2.1 ABILITY TO ACHIEVE PROJECT OBJECTIVES

The ability of an alternative to meet most of the project objectives is an important component when evaluating alternatives. When an alternative is selected, not only are the environmental impacts considered, but so is the alternative's ability to meet a project's intended objectives. Section 15126.6(f) of the State CEQA Guidelines (14 CCR) states the following:

> The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those

> alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.

The following objectives have been identified for the Project:

1. To provide Affordable Housing in the unincorporated portion of Orange County consistent with the goals of the County Housing Element.
2. To utilize opportunities under the AHIA to assist the County in meeting the Regional Housing Needs Assessment (RHNA) allocation for affordable housing in unincorporated areas of the County.
3. To identify a reliable method for implementation of the Project within the Ranch Plan, allowing for flexibility in light of uncertain future resources of the County of Orange.
4. To provide affordable housing opportunities that meet the demand of a substantial portion of the lower income population in Orange County.

5.2.2 FEASIBILITY

When developing alternatives for evaluation in an EIR, the feasibility of implementing each alternative must be considered. If a range of alternatives is developed but, due to regulatory restrictions, none of the alternatives could be potentially implemented, the analysis would not meet CEQA's intent to provide a reasonable range of feasible alternatives. Section 15126.6(f)(1) of the State CEQA Guidelines (14 CCR) states the following:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; see *Save Our Residential Environment v. City of West Hollywood* (1992) 9 Cal.App.4th 1745, 1753, fn. 1).

It has been recognized that, for purposes of CEQA, "feasibility" encompasses "desirability" to the extent that the latter is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001). This balancing is harmonized with CEQA's fundamental recognition that policy considerations may render alternatives impractical or undesirable (Ibid.; see also *California Public Resources Code,* Section 21081; 14 CCR 15126.6(c) and 15364).

5.2.3 ELIMINATION/REDUCTION OF SIGNIFICANT IMPACTS

Section 15126.6(b) of the State CEQA Guidelines states the following:

> [b]ecause an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section

> 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The proposed Project, evaluated in Sections 4.1 through 4.10 of this EIR, would result in significant environmental impacts in two areas. Specifically, the Project development scenarios would result in significant impacts by contributing to significant cumulative construction (short-term) air pollutant emissions and operational (long-term) greenhouse gas (GHG) emissions in excess of the South Coast Air Quality Management District's (SCAQMD's) recommended project-level efficiency threshold.

As discussed in Section 4.1, Air Quality, the finding that the Project's contribution to cumulative construction air pollutant emissions is a significant impact reflects an acknowledgement that construction of Affordable Housing units at each site would occur in conjunction with development of the Ranch Plan Planning Subareas. As indicated in Section 4.1, Air Quality, SCAQMD's basic policy with respect to cumulative impacts is that impacts that would be directly less than significant would also be cumulatively less than significant (SCAQMD 2003). The Ranch Plan Program EIR No. 589 concluded that there would be significant and unavoidable construction emissions impacts, with an emphasis on oxides of nitrogen (NOx) emissions. While off-road construction equipment is currently much cleaner than a decade ago when FEIR 589 was prepared, given that the Project will be implemented in conjunction with a larger development (i.e., the Ranch Plan), which was found to have significant unavoidable impacts related to construction emissions, the EIR's analysis concluded that (1) the combined construction emissions during the development of any of the Subareas where the Project would be developed could exceed the SCAQMD NOx emissions thresholds and (2) the Project's contribution would incrementally add to these emissions. Therefore, there would potentially be a significant cumulative impact. Mitigation measures have been identified that reduce the potential Project's contribution to cumulative construction emissions. However, these measures would not affect the air quality impacts from construction of the Ranch Plan, nor eliminate the Project's incremental contribution thereto. Thus, there is no Project alternative, other than the No Project Alternative, that would avoid or substantially reduce the cumulative, construction-related impacts to air quality to a less than significant level.

The analysis provided in Section 4.2, Greenhouse Gas Emissions, addresses the GHG emissions for the Project using both program-level and project-level GHG "efficiency" thresholds that measure GHG emissions performance on a per-person basis. Impacts are projected to be less than significant using the program-level efficiency threshold. However, using the project-level analysis, impacts were identified as significant, unavoidable. The approach used in the EIR assumes the Project is implemented as a single project. This approach represents a worst-case analysis. Alternatives evaluated that would substantially reduce the impacts are addressed below.

5.3 ALTERNATIVE CONSIDERED BUT NOT CARRIED FORWARD

Section 15126.6(c) of the State CEQA Guidelines provides the following:

> EIR should also identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the

> reasons underlying the Lead Agency's determination. . . . Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

In furtherance of the disclosure objective, there is one alternative that was considered but not carried forward, which is discussed below.

5.3.1 ALTERNATIVE SITE

Section 15126.6(f)(2) of the State CEQA Guidelines sets forth the following criteria for determining whether to identify an alternative site because "[a]n EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (14 CCR 15126.6[f][3]). Section 15126.6(f)(2) of the State CEQA Guidelines (14 CCR) states:

> (A) Key question. The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
>
> (B) None feasible. If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in proximity to natural resources at a given location.
>
> (C) Limited new analysis required. Where a previous document has sufficiently analyzed a range of reasonable alternative locations and environmental impacts for projects with the same basic purpose, the lead agency should review the previous document. The EIR may rely on the previous document to help it assess the feasibility of potential project alternatives to the extent the circumstances remain substantially the same as they relate to the alternative (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 573).

Development of the Project on an alternative site was not carried forward for detailed consideration, because the AHIA is specifically associated with the Ranch Plan. The requirement for RMV to provide Dedicated Lands presents the County with a unique opportunity under which the County, at no cost, can obtain sites for the implementation of affordable housing. Since the AHIA is specifically associated with Ranch Plan, the Project would not be transferable to any other properties. Therefore, an alternative site was not carried forward as a feasible alternative.

5.3.2 INCREASED DENSITY ALTERNATIVE

An approach for reducing GHG emissions is to reevaluate the distribution of people and places. The basis for this approach is that the largest contributing factor of the GHG emissions is mobile emissions, which are associated with travel.[1] The density of development strongly influences the demand for transportation. However, the effectiveness of increasing density as a means of reducing the overall GHG levels for the service population (i.e., those served by the project) is an approach applicable to transit-oriented development (TOD), which encourages high density in proximity to transit stations to encourage the use of transit. Additionally, by encouraging mixed-use development (i.e., where homes are within walking distance of shops and employment), development patterns can reduce vehicle travel while enhancing accessibility. The area surrounding the Ranch Plan is not currently served by regional public transit and it would be speculative to assume that regional transit would be extended to this area in the timeframe of the proposed Project.[2] Effective transit is an important consideration for high density housing to improve the overall efficiency level in terms of GHG emissions. A recent study by the Pew Center on Global Climate Change prepared for the U.S. Department of Transportation reports that travel is relatively insensitive to changes in the built environment alone, estimating that doubling local densities of population and employment could be expected to reduce vehicle miles traveled by only about five percent (Greene and Schafer 2003).

For this Project, increasing the density would have minimal reduction on the efficiency level in terms of the SCAQMD's thresholds. As discussed in Section 4.2 and shown in Table 5-2 later in this section, the key contributors to GHG emissions are energy, mobile emissions, solid waste, and water. A substantial increase in density (e.g., developing at 50 units per acre rather than 25 units per acre) would likely reduce water used per unit for landscaping and could possibly reduce construction grading per unit,[3] but there would be little or no change in emissions from mobile, energy, indoor water usage, and solid waste because these emissions are directly proportional to the number of dwelling units.. Without an alternative mode of transportation (transit), increasing the density alone would not substantially reduce the emission factors. This alternative was not carried forward for fully analysis because it was not effective as a means of reducing the overall GHG levels for the service population, and therefore, did not meet the definition of a reasonable CEQA alternative (i.e., an alternative that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.)

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1 As shown in Table 4.2-4 in Section 4.2, Greenhouse Gas Emissions, mobile emissions would be more than 83 percent of the Project operational GHG emissions for all three scenarios.

2 As discussed in Section 4.2, Greenhouse Gas Emissions, on June 13, 2016, the Orange County Transportation Authority (OCTA) approved a grant to provide funding for a program that would serve Ladera Ranch and the Ranch Plan as part of the Community-Based Transit/Circulators Program. The OCTA Measure M2 Project V provides funds for seven years, beginning in the 4th quarter of 2016, extending through 2023. Funding for the program is also derived from a portion of the homeowners' association fees collected by the Rancho Mission Viejo Master Maintenance Corporation. Though this program is expected to continue serving the community, no GHG savings were assumed because this service is not required as part of approvals for Ladera Ranch or the Ranch Plan.

3 A doubling of the density would require a reevaluation of the anticipated type of building to be constructed, which could influence the construction emissions. Subterranean parking to accommodate the increased density would require more grading.

5.3.3 REDUCED DEVELOPMENT ALTERNATIVE

An assessment was made to determine how many units of affordable housing would be able to be developed without resulting in a significant project-level impact. As described in Section 4.2, Greenhouse Gas Emissions, all projects with GHG emissions of less than 3,000 $MTCO_2e$/year would contribute only 10 percent of the regional GHG emissions and are assumed to have less than significant GHG emissions. Therefore, the Reduced Development Alternative analysis focused on the amount of development that could be constructed and not exceed the SCAQMD-recommended bright-line screening threshold of 3,000 $MTCO_2e$/year.

For an individual Affordable Housing project, GHG emissions were calculated with CalEEMod using the same methods as were used to calculate the overall Project emissions in Section 4.2. GHG emissions were calculated for a 150-dwelling-unit project on a 6-acre site. To demonstrate temporal effects, GHG emissions were calculated for completion/operational years 2020, 2025, and 2030. It was conservatively assumed that all trip generation is at the all-age trip generation rate as opposed to assuming that some occupants would be age-qualified and those occupants would generate trips at a lesser rate. The results ranged from 1,982 $MTCO_2e$/year for completion in 2020 to 1,834 $MTCO_2e$/year for completion in 2030. The GHG emissions will decrease with time because of required (by regulations) reduced vehicle GHG emissions with newer cars and increased renewable content in SDG&E electric supply.

Assuming a constraint of 3,000 $MTCO_2e$/year, based on the SCAQMD bright-line threshold and GHG emissions approximately 1,900 $MTCO_2e$/year for a 150-dwelling-unit project, the largest project that could be built with less than significant GHG emissions would be approximately 236 dwelling units or approximately 9.5 acres of the Dedicated Lands. If the population of this hypothetical largest project included 25 percent age-qualified residents, the largest project could be approximately 267 dwelling units or approximately 10.7 acres of Dedicated Land.

This alternative was not carried forward because it would not effectively meet the Project Objectives. Though this alternative would provide affordable housing for low and very-low income households, the amount of affordable housing would be limited to approximately ¼ of the Dedicated Lands.

5.4 ALTERNATIVE FOR ANALYSIS

In accordance with Section 15126.6(a) of the State CEQA Guidelines, the discussion in this section of the EIR focuses on a reasonable range of alternatives. CEQA requires the evaluation of the No Project Alternative which, for this Project, has been evaluated in Sections 4.1 through 4.10. Though various development scenarios were evaluated in Section 4, all the development scenarios would result in a significant GHG impact. Therefore, an additional alternative was developed to reduce the potential impacts associated with GHG emissions. CEQA requires the alternative to be capable of avoiding or substantially lessening the potentially significant effects of the Project. Qualifying alternatives can be considered even if the alternatives would impede to some degree the attainment of the Project objectives, or would be more costly.

As discussed above, the generation of sufficient low-carbon on-site energy was determined not to be practicable and the EIR considered other measures to substantially reduce the GHG emissions. Since the largest source of GHG emissions for the Project are mobile emissions

(vehicle trips), the focus needs to be an alternative that would reduce the mobile source emissions. Similarly, as stated above, increasing the density of the development would not be an effective method of improving the efficiency level and achieving the project-level efficiency threshold established by the SCAQMD.

An alternative that would reduce the mobile emissions is to require all the Affordable Housing units to be developed as age-qualified housing because age-qualified development generates fewer trips than family units. Though the impacts would not be reduced to a level considered less than significant, it would substantially reduce the impacts and, therefore, this alternative was carried forward for further evaluation.

In accordance with Section 15126.6(a) of the State CEQA Guidelines, the EIR provides a comparison of the environmental effects and their merits and/or disadvantages of the alternative in relation to the proposed Project, as well as each alternative's ability to achieve the Project Objectives.

5.4.1 AGE-QUALIFIED ALTERNATIVE

The Age-Qualified Alternative would follow most of the same assumptions as the Project development scenarios described in Section 3.4, Description of the Project. This alternative would provide for the development of affordable rental housing on the Dedicated Lands (Affordable Housing sites) in Planning Areas 3, 4, 5, and 8. The development would be at a density of no less than 25 dwelling units per net acre. The housing sites will be between two and ten acres in size and distributed throughout the Ranch Plan and are assumed to be the same locations as with the proposed Project. As with the Project, given the provision of the AHIA, approximately 10,000 cubic yards of finished grading is assumed per site to allow for the development of building foundations, construction of a pool, and construction of internal access roads.

As with the proposed Project, Addendum Two to the AHIA would allow the use of the Private-Sector Alternative as an alternative method for developing Affordable Housing sites that permits builder financing and provides necessary infrastructure at no cost to the County. However, this alternative would deviate from the Project by requiring a modification to Addendum Two to the AHIA to require all the Affordable Housing units to be restricted to age-qualified households (restricted to age 55 years and older) compared to the 25 percent assumed as part of the Project. This alternative could be applied to all the development scenarios because it would not influence the ability to use the Private-Sector Alternative. Table 5-1 provides a comparison of the assignment of units for each development scenario under both the Project and the Age-Qualified Alternative.

TABLE 5.4-1
COMPARISON OF THE NUMBER OF AGE-QUALIFIED AND FAMILY UNITS BY DEVELOPMENT SCENARIO

Development Scenario	Total Number of Affordable Housing Units	Proposed Project		Age-Qualified Alternative
		Age-Qualified Units	Family Units	Age-Qualified Units
Development Scenario 1	555	139	416	555
Development Scenario 2	740	185	555	740
Development Scenario 3	1,110	277	833	1,110

Impact Evaluation

Pursuant to the State CEQA Guidelines, an analysis has been prepared comparing the alternative under consideration and the proposed Project. The focus of this analysis is to the extent to which the alternative is capable of eliminating or reducing the significant environmental effects of the Project to a less than significant level. For the majority of topical areas discussed in Sections 4.1 through 4.10, there would be limited changes to the impacts associated with the Age-Qualified Alternative because the nature of the physical development would not be substantially different. There is the potential that the overall square footage of the age-qualified development would be slightly less than developments with a higher percentage of family units because the number of bedrooms may be reduced.[4] At this time, site plans are not available and the potential incremental reduction in the size of the buildings would not substantially change the nature of the impacts because the sites will be delivered to the County as fully graded pads so it would not reduce the overall area of disturbance. Additionally, the reduction in the building size would be a relatively minor amount of the total square footage.

Air Quality

The air quality impacts associated with the Age-Qualified Alternative would be similar to, though slightly less, than with the Project. The reduction in the long-term air emissions would be because there would be fewer vehicle trips associated with the age-qualified housing, even though the total number of units would be comparable to the Project development scenarios.

As discussed in Section 4.1, Air Quality, the additional housing associated with the AHIA has been incorporated into the long-range growth projections for Orange County and will be incorporated into the 2016 Air Quality Management Plan, which is the policy document that would be in place at the time the Project or alternative is implemented. Therefore, there would be no conflict with the applicable air quality plan (Threshold 4.1-1).

As documented in Section 4.1, the Project would not result in significant construction mass emissions or local construction emissions in excess of the SCAQMD CEQA significance thresholds. Since the Age-Qualified Alternative would be constructing comparable development, the

[4] The Affordable Housing development in Planning Area 1 is age-qualified. The units were all one-bedroom and two-bedroom units. The Affordable Housing development in Planning Area 2 is all family units. The development in Planning Area 2 included some three-bedroom units.

construction emissions would be comparable. However, since the Age-Qualified Alternative would have approximately 47 percent fewer vehicle trips but the other development characteristic would be the same as the Project, it can be concluded that the Age-Qualified Alternative would have comparatively less operational emissions.[5] Neither the Project nor the alternative would exceed the CEQA significance thresholds established by the SCAQMD for mass operational emissions. Therefore, the impacts for the Age-Qualified Alternative would be slightly less than those identified for the Project, and the impacts for both the Project and this alternative would be less than significant (Threshold 4.1-2).

As with the proposed Project, the age-qualified units would be constructed within the limits of the Ranch Plan, which had a finding of a significant project-level and cumulative construction air quality impacts. Though the standard conditions and mitigation measure identified in Section 4.1, Air Quality, would apply to this alternative, there would still be a contribution to significant cumulative construction air quality impacts (Threshold 4.1-3). However, as with the Project, there is no alternative, other than the No Project Alternative, that would reduce the cumulative impacts to less than significant due to the location and concurrent timing of the development of the Affordable Housing and the Ranch Plan.

This alternative would have incrementally fewer vehicle trips; therefore, it would generate slightly fewer criteria pollutants than the Project; however, the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant for both the Project and the Age-Qualified Alternative (Threshold 4.1-4).

Greenhouse Gas Emissions

The Age-Qualified Alternative was developed to reduce the GHG emissions compared with the Project. The Project impacts were less than significant using the program-level threshold; therefore, the program-level impacts for this alternative would also be less than significant because, as discussed below, it has reduced GHG emissions compared to the Project.

The construction GHG emissions would be the same as for the Project because the construction activities would be comparable regardless of whether the units are age-qualified or family units. The emissions would vary based on the development scenario implemented (i.e., the number of units constructed). The results of the CalEEMod calculations for construction are shown in Table 4.2-3. The long-term emissions would be reduced because the overall vehicle miles traveled would be less for age-qualified units. The estimated operational GHG emissions for the Age-Qualified Alternative are presented in Table 5-2

[5] The traffic report prepared for this Project utilizes the *Institute of Traffic Engineers Trip Generation Manual (9th Edition)* trip generation factors for estimating traffic generated by the Project. The average daily trip generation for age-qualified apartments as 3.44 trips compared to 6.65 trips per day for family (all age) apartments (Stantec 2016).

TABLE 5.4-2
ESTIMATED OPERATIONAL ANNUAL GREENHOUSE GAS EMISSIONS FOR THE AGE-QUALIFIED ALTERNATIVE (ALL DEVELOPMENT SCENARIOS)

Source	Scenario 1		Scenario 2		Scenario 3	
	Emissions $MTCO_2e$/yr	Percent of Total	Emissions $MTCO_2e$/yr	Percent of Total	Emissions $MTCO_2e$/yr	Percent of Total
Area	10	0.3	13	0.3	19	0.3
Energy	496	16.9	662	16.9	993	16.9
Mobile	2,207	75.0	2,943	75.0	4,414	75.0
Solid Waste	116	3.9	155	3.9	232	3.9
Water	112	3.8	150	3.8	225	3.8
Annual GHG Emissions	**2,941**	**100.0**	**3,922**	**100.0**	**5,883**	**100.0**

$MTCO_2e$/yr: metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas
Note: totals may not balance due to rounding.

Table 5-3 shows the total estimated annual GHG emissions at buildout, which is the sum of the amortized construction emissions and the operational emissions. For this alternative, the GHG emissions for Scenario 1 would result in 3,081 metric tons of carbon dioxide equivalent per year ($MTCO_2e$/year). The estimated Scenario 1 population is 777 residents, which constitutes the service population (SP) when calculating the efficiency level of the scenario. Table 5-3 shows the calculated Scenario 1 GHG efficiency to be 3.97 $MTCO_2e$/SP/year. The efficiency is calculated by dividing the annual emissions of 3,081 $MTCO_2e$/year by the projected population of 777 persons. The total estimated annual GHG emissions at buildout for Scenario 2 would be 4,109 $MTCO_2e$/year. The estimated Project population is 1,036 residents, resulting in a calculated GHG efficiency of 3.97 $MTCO_2e$/SP/year. The total estimated annual GHG emissions for buildout of Scenario 3 would be 6,164 $MTCO_2e$/year, with an estimated population of 1,554 residents, resulting in a calculated GHG efficiency to be 3.97 $MTCO_2e$/SP/year.

TABLE 5.4-3
ESTIMATED TOTAL ANNUAL GREENHOUSE GAS EMISSIONS

Source	Scenario 1 Emissions $MTCO_2e/yr$	Scenario 2 Emissions $MTCO_2e/yr$	Scenario 3 Emissions $MTCO_2e/yr$
Construction (amortized) (from Table 4.2-3)	140	187	281
Operations (from Table 5-2)	2,941	3,922	5,883
Total Annual GHG Emissions	**3,081**	**4,109**	**6,164**
Service Population	777	1,036	1,554
GHG efficiency ($MTCO_2e/SP/yr$)	**3.97**	**3.97**	**3.97**
Plan-Level Significance threshold*	***4.93***	***4.93***	***4.93***
Exceed threshold?	***No***	***No***	***No***
Project-Level Significance threshold*	***3.60***	***3.60***	***3.60***
Exceed threshold?	***Yes***	***Yes***	***Yes***

$MTCO_2e/yr$: metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas; $MTCO_2e/SP/yr$: metric tons of carbon dioxide equivalent per service population per year

* Threshold for 2030 interpolated from recommended values for 2020 and 2035 (SCAQMD 2010).

The GHG efficiency for all three development scenarios under the Age-Qualified Alternative is less than the interpolated 2030 plan-level threshold of 4.93 $MTCO_2e/SP/year$ but, similar to the Project, would exceed the project-level threshold of 3.60 $MTCO_2e/SP/year$. However, this alternative has an improved efficiency level compared to the Project (3.97 for the Age-Qualified Alternative compared to approximately 4.53 for the Project).[6] As described in Section 4.2, Greenhouse Gas Emissions, these are the efficiency thresholds for 2030, which were developed by linear interpolation between the SCAQMD-recommended efficiency thresholds for 2020 and 2035. Though this alternative would not reduce the impacts associated with GHG emissions to less than significant, the impacts would be less than those for the Project. The standard conditions and mitigation measure identified for the Project (see Section 4.2.7) would be applicable to the Age-Qualified Alternative. Nonetheless, the impacts would remain significant and unavoidable (Threshold 4.2-1).

As with the proposed Project, the Age-Qualified Alternative would be consistent with the applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Assembly Bill (AB) 32 is the principal State plan and policy adopted for the purpose of reducing GHG emissions. As described in Section 4.2, actions to achieve the GHG emission reductions outlined in AB 32 are specified in the California Air Resources Board's (CARB's) *Climate Change Scoping Plan.* The scoping plan, as updated, identified actions are almost exclusively the responsibility of State agencies and would not be Project specific. However, State regulations adopted for the purpose of reducing GHG emissions that would be applicable to the Project and the Age-Qualified Alternative are reflected in the applicable standard conditions. As with the Project, the development associated with the Age-Qualified

[6] As shown in Table 4.2-5, the efficiency level for the Project Scenario 1 is 4.52, whereas Scenarios 2 and 3 have an efficiency level of 4.53. The difference is due to rounding.

Alternative would be consistent with the adopted *2016–2040 Regional Transportation Plan Sustainable Communities Strategy* (RTP/SCS) (Threshold 4.2-2).

Hydrology and Water Quality

Neither the Project nor the alternative would violate any water quality standards or waste discharge requirements, nor would it substantially degrade water quality because the developments would be required to comply with the applicable State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity. Best Management Practices would be integrated into the design for both the Project and the Age-Qualified Alternative, consistent with the requirements of the Municipal Separate Storm Sewer System (MS4) permit and the Orange County Drainage Area Management Plan. The impacts of both the Project and this alternative would be same (Thresholds 4.3-1 and 4.3-2)

Neither the Project nor the Age-Qualified Alternative would create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems and neither would provide substantial additional sources of polluted runoff. As indicated for the Project, development for the Age-Qualified Alternative would not result in an expansion of the areas to be graded, nor would it substantially alter site coverage. No additional hydromodification or drainage impacts would occur with the alternative because the building site would be provided as a graded pad and only minor site preparation would be required. The backbone storm drain system constructed for the Ranch Plan would serve the Dedicated Lands. The development of the site with age-qualified units or family units would be the same and would not result in significant impacts (Threshold 4.3-3).

Land Use and Planning

Development under the Age-Qualified Alternative would be consistent with the applicable land use plan. Similar to the proposed Project, there would be no compatibility impacts with existing or planned land uses surrounding the Affordable Housing sites. As with the proposed Project, this alternative would be consistent with the applicable regional and local policies and regulations. This alternative would contribute additional housing units for low and very-low income households and would serve the County's long-term housing goals; however, there is the potential that this alternative would not be as effective as the proposed Project because the units provided would be age-qualified and would not be available to serve the full spectrum of the need for affordable housing. However, this alternative would not conflict with the goals and policies of the General Plan because there are opportunities to provide family units elsewhere in unincorporated areas of the county. Specifically, the Housing Element identifies that the Housing Opportunity Overlay Zone has the capacity to provide up to 2,032 additional affordable units (see Section 4.4, Land Use and Planning, for a discussion of the Housing Opportunity Overlay Zone). Similar to the proposed Project, this alternative would be consistent with the 2013–2021 RHNA requirements outlined in the Housing Element. Therefore, from a land use consistency perspective, this alternative would have no impact. From a policy perspective, the impacts would be less than significant (Threshold 4.4-1).

Noise

Noise impacts associated with construction activities would be the same for the Age-Qualified Alternative as for the Project because construction activities would be the same. The traffic noise impacts associated with the long-term operation of the Age-Qualified Alternative would be incrementally less than Project because there would be reduced vehicle trips. However, the difference would be negligible because the overall reduction in trips would be a small percentage of the number of vehicles on the road. The difference in the noise levels between the Project and the Age-Qualified Alternative would not be perceptible to the average person. The standard conditions identified for the Project (i.e., SC NOI-1 through SC NOI-5) would also apply to this alternative (Threshold 4.5-1). Additionally, neither the Project nor this alternative would cause a substantial permanent increase in ambient noise levels (Threshold 4.5-3). The temporary noise impacts that would be associated with the alternative would be associated with construction activities and would be the same as for the Project (Threshold 4.5-4). As with the Project, this alternative would not produce discernable vibration impacts or be exposed to substantial vibration impacts from highway operations. Vibration associated with construction activities would be less than significant and would be the same as those associated with the Project (Threshold 4.5-2). As with the Project, the noise and vibration impacts would be less than significant.

Population and Housing

The Age-Qualified Alternative would result in fewer people than the Project. Table 5-4 provides a comparison of the population that would be generated by Project and by the Age-Qualified Alternative. The generation factors of 1.99 persons per dwelling for the family units and 1.4 persons per senior unit have been used.

TABLE 5.4-4
COMPARISON OF POPULATION PROJECTIONS FOR THE PROJECT AND THE AGE-QUALIFIED ALTERNATIVE

	Scenario 1	Scenario 2	Scenario 3
Project	1,023	1,363	2,045
Age-Qualified Alternative	777	1,036	1,554
Total Number of Affordable Housing Units is as follows: 555 for Scenario 1 (416 family units and 139 age-qualified units); 740 for Scenario 2 (555 family units and 185 age-qualified units); and 1,110 for Scenario 3 (833 family units and 277 age-qualified units).			

As with Project, the Age-Qualified Alternative would provide additional housing units within the Ranch Plan; however, it would not induce substantial population growth in an area, either directly or indirectly. The alternative would utilize the road network and support infrastructure (electrical, gas, storm drains, and emergency services) being developed for the Ranch Plan and, other than short-term construction jobs, would not generate any long-term new employment in the Project area. As with the Project, this growth would be consistent with the development levels assumed in the adopted Orange County Projections 2014 (OCP-2014). Therefore, the impacts of the Project and the Age-Qualified Alternative would be similar and less than significant for population and housing (Threshold 4.6-1).

Public Services

Fire Protection Services

As with the Project, the development associated with the Age-Qualified Alternative would be located within development areas within the Ranch Plan. Site requirements of the *Ranch Plan Planned Community-Wide Fire Protection Program* (RPFPP), such as fire flow for hydrants and fuel modification, would be implemented prior to the sites being available for the development of Affordable Housing units. The Fire Master Plan Guidelines contained in the RPFPP would apply to the development of both the Project and the Age-Qualified Alternative.

Though the Age-Qualified Alternative may result in an incremental increase in the number of emergency calls per capita, the future fire station facilities associated with the Ranch Plan would be adequate to serve the proposed Affordable Housing units, and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities would occur with either the Project or the alternative as it pertains to fire services (Threshold 4.7-1).

Police Protection Services

The Age-Qualified Alternative would incrementally reduce the additional population when compared to the Project. As a result, there would be an expected reduction in the number of calls for police services. However, as with the Project, existing Orange County Sheriff Department facilities serving the Southeast and Southwest areas of Orange County would be adequate to serve the increased population associated with this alternative, and no additional facilities would be required. Therefore, no physical impacts associated with the provision of new or altered government facilities as it pertains to police protection services would be required, and impacts would be less than significant for both the Project and Age-Qualified Alternative (Threshold 4.7-2).

Schools

The Age-Qualified Alternative would not generate any school-aged children because of the senior nature of the residents. Though the Project would result in less than significant impacts on the existing or future schools serving the Ranch Plan, this alternative would place less demand on the schools than the Project. This alternative would not require new or altered government facilities as it pertains to schools, and there would be no impact on schools with the Age-Qualified Alternative (Threshold 4.7-3).

Parks

The Age-Qualified Alternative would generate less demand for park facilities because of the reduced population associated with the age-qualified housing compared to the Project. Parkland would be provided within the development areas of the Ranch Plan, which is sufficient to serve the additional population generated from either the Project or the Age-Qualified Alternative. The impacts associated with the development of the parkland was addressed in conjunction with FEIR 589 prepared for the Ranch Plan. Therefore, neither the Project nor the Age-Qualified Alternative would require new or altered government facilities as it pertains to parkland beyond those impacts identified in FEIR 589 (Threshold 4.7-4).

Other Public Facilities (Libraries)

The Age-Qualified Alternative would generate less demand for libraries because of the reduced population associated with the age-qualified housing compared to the Project. However, the construction of a library within the Ranch Plan is already assumed and physical impacts were evaluated in FEIR 589; therefore, the impacts associated with the need for construction of new library facilities would comparable, and less than significant, with both the Project or Age-Qualified Alternative (Threshold 4.7-5).

Recreation

As indicated above, the Age-Qualified Alternative would generate less demand for park facilities because of the reduced population associated with the age-qualified housing compared to the Project. Table 5-5 provides a comparison of the parkland requirements for the Project and the Age-Qualified Alternative using the requirement of 2.5 acres of parkland for every 1,000 residents provided in the County's Local Park Code. For both the Project and the Age-Qualified Alternative, there is sufficient parkland planned within the Ranch Plan to accommodate the additional population associated with the Project or the Age-Qualified Alternative. Based on current plans, the amount of parkland planned in the Ranch Plan will exceed both the requirements of the County's Local Park Code and the *Ranch Plan Planned Community Local Park Implementation Plan* (LPIP). Therefore, the increased population associated with both the Project and the Age-Qualified Alternative would not result in or accelerate a substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities and impacts would less than significant (Threshold 4.8-1). Additionally, neither the Project nor the Age-Qualified Alternative would require the construction or expansion of recreational facilities beyond what is planned for the Ranch Plan and previously addressed in FEIR 589. Therefore, neither the Project nor the Age-Qualified Alternative would result in an impact on the environment associated with the provision recreational facilities (Threshold 4.8-2).

TABLE 5.4-5
COMPARISON OF PARKLAND REQUIREMENTS FOR THE PROJECT AND THE AGE-QUALIFIED ALTERNATIVE

	Scenario 1 (acres)	Scenario 2 (acres)	Scenario 3 (acres)
Project	2.56	3.41	5.11
Age-Qualified Alternative	1.94	2.59	3.89

Transportation/Traffic

As with the proposed Project, the Age-Qualified Alternative would contribute traffic to the existing and future circulation system. However, neither the Project nor the Age-Qualified Alternative would cause any intersections, freeway/toll road ramps, or freeway/toll road mainline segments to operate at unacceptable levels of service. The Age-Qualified Alternative would result in fewer vehicle trips than the Project; therefore, the effects on the roadway network would be slightly less than with the Project. As identified above, the traffic report prepared for this Project utilizes the *Institute of Traffic Engineers Trip Generation Manual (9th Edition)* trip generation factors for estimating traffic generated by the Project. The average daily trip generation for age-qualified apartments as 3.44 trips compared to 6.65 trips per day for

family (all age) apartments. Therefore, the total number of trips with the Age-Qualified Alternative would be slightly more than half the trips associated with the Project. However, with both the Project and this alternative impacts would be less than significant. Additionally, neither the Project nor the Age-Qualified Alternative would result in direct impacts on pedestrian and bicycle paths or mass transit services. Therefore, impacts would be less than significant and would not require mitigation (Threshold 4.9-1).

Neither the Project nor the Age-Qualified Alternative would conflict with the Orange County Congestion Management Plan (CMP) because it would not result in the deterioration in the level of service or volume over capacity ratios at any of the CMP intersections, nor would they create substantial increased demand on a CMP roadway. Impacts for both the Project and the Age-Qualified Alternative would be less than significant and would not require mitigation (Threshold 4.9-2).

Utilities and Service Systems

As with the Project, the necessary wastewater conveyance facilities, such as lift stations and sewer lines, would be provided as part of the Ranch Plan development. Santa Margarita Water District's (SMWD's) Standard Design requirements would be applicable to ensure wastewater discharge standards are complied with. Since all wastewater flows from the Project would be directed to the Chiquita Water Reclamation Plant (CWRP), which is designed to comply with all applicable wastewater discharge requirements, as enforced by the San Diego RWQCB, implementation of the either the Project or the Age-Qualified Alternative would not result in an exceedance of wastewater treatment requirements, and impacts would be less than significant (Threshold 4.10-1).

Construction of water and sewer infrastructure would be phased concurrent with construction of the Ranch Plan. Therefore, the Alternative Baseline Condition assumes all required water and sewer infrastructure needed to serve the Affordable Housing sites are "existing" and there would be sufficient capacity to meet system-wide demand. The infrastructure associated with the Ranch Plan, which has been addressed as part of FEIR 589, would serve both the Project and the Age-Qualified Alternative. Therefore, neither the Project nor the Age-Qualified Alternative would result in the construction of additional water or wastewater treatment facilities or expansion of existing facilities that could cause significant environmental impacts (Threshold 4.10-2) or exceed the capacity of the wastewater treatment provider (Threshold 4.10-4).

The Age-Qualified Alternative would result in the same number of units being developed and would have similar water demand. As discussed in Section 4.10, Utilities and Service Systems, a Water Supply Assessment has been prepared for the Project. Additionally, the Affordable Housing units have been incorporated into the SMWD 2015 Urban Water Management Plan. Therefore, impacts on water supplies for both the Project and the Age-Qualified Alternative would be comparable and less than significant (Threshold 4.10-5).

Conclusions

Would the Age-Qualified Alternative Avoid or Substantially Lessen the Significant Impacts, Compared to the Project?

The Age-Qualified Alternative would not avoid the significant impacts identified with the Project. As discussed above, since the determination of a contribution to a significant cumulative construction air quality impact is based on the findings of FEIR 589, there is no alternative, other than the No Project Alternative, that would reduce these impacts to less than significant. The Age-Qualified Alternative would substantially reduce the GHG impacts, but not to a level that is less than significant. These impacts are associated with mobile emissions, and, at this time, there is not a feasible method of reducing these emissions due to the present lack of transit opportunities and the residential nature of the Project (i.e., no ability to account for internal capture of vehicle trips).

Would the Age-Qualified Alternative Result in Attainment of Project Objectives, Compared to the Project?

The following provides an assessment of the alternative's ability to meet the each objective and a comparison to the Project.

Objective 1: To provide Affordable Housing in the unincorporated portion of Orange County consistent with the goals of the Housing Element.

Both the Project and the Age-Qualified Alternative would provide affordable housing in the unincorporated portion of Orange County consistent with the goals of the Housing Element. The Housing Element discusses the special housing need of seniors and large families in Orange County. The Housing Element cites Census estimates, which states that approximately 14 percent of renter households in unincorporated Orange County are households where the householder was 65 or older. The Housing Element identifies that the housing needs of seniors can be addressed through smaller units, second units on lots with existing homes, shared living arrangements, congregate housing, and housing assistance programs.

Though both the Project and the Age-Qualified Alternative would be generally consistent with the goals of the Housing Element, the Age-Qualified Alternative would only serve one segment of the need in Orange County. Therefore, it would not meet this objective as effectively as the Project.

Objective 2: To utilize opportunities under the AHIA to assist the County in meeting the Regional Housing Needs Assessment (RHNA) allocation for affordable housing in unincorporated areas of the County.

Both the Project and the Age-Qualified Alternative would be able to equally meet the requirements of Objective 2. Addendum Two to the AHIA, which is a component of the Project and the alternative, would provide greater flexibility to implement affordable housing in the remainder of the Ranch Plan because it would allow the use of private-sector resources should there not be sufficient public-sector resources available to implement affordable housing at the time the Dedicated Lands become available. The only difference would be the percentage of the

housing allocated to age-qualified residents. However, the RHNA does not distinguish between age-qualified and family units.

Objective 3: To identify a reliable plan for implementation of Affordable Housing within the Ranch Plan, allowing for flexibility in light of uncertain future resources of the County of Orange.

As indicated above, the integration of the Private-Sector Alternative would provide greater flexibility for the implementation of affordable housing because, if sufficient public-sector resources are not available to implement affordable housing at the time the Dedicated Lands become available, there would be the option of using private-sector resources. Addendum Two to the AHIA does not mandate the use of the Private-Sector Alternative provides this additional mechanism for implementing the affordable housing units, thereby proving safeguards should public resources be limited in the future. Both the Project and the Age-Qualified Alternative would be able to equally meet the requirements of Objective 3.

Objective 4: To provide affordable housing opportunities that that meet the demand of a substantial portion of the lower income population in Orange County.

While any project that provides affordable housing helps to serve a critical need in Orange County, an understanding of the demographics of the lower income population is necessary to determine if an alternative aligns with the need. US Census Bureau 2014 American Community Survey data identifies that, within Orange County, approximately 25 percent of the population is 55 years of age or older and approximately 25.4 percent of the households have individuals 65 years of age and older (U.S. Census Bureau 2016a, 2016b). Families with children under 18 years old constitute 37.8 percent of the households. These figures are consistent with the County of Orange *FY 2015-19 Consolidated Plan and FY 2015-2016 Annual Action Plan* (Consolidated Plan), prepared by Orange County Community Resources.[7] The Consolidated Plan is a planning document that identifies the Urban County's overall housing and community development needs, and outlines a strategy to address those needs. As part of this study, a housing needs assessment was completed. The need for affordable rental housing for both families and seniors is identified.

The Consolidated Plan evaluates a number of obstacles to adequate housing; however, the most common housing problem and the one most applicable to this Project was housing cost burden. Cost burden was broken into two categories. Those households where housing cost is in excess of 30 percent of the household gross income and those households with housing cost in excess of 50 percent of the household gross income. Table 5-6 provides the number of renter households in the Consolidated Plan area, with incomes under 80 percent of the average median income for the County, that have cost burden in excess 30 percent or 50 percent. This group is further broken out by the type of household.

[7] This plan addresses "Urban County" of Orange, which is comprised of 11 small cities with populations under 50,000 (participating cities); three cities, Aliso Viejo, Placentia and Yorba Linda with populations over 50,000 (metropolitan city); and the unincorporated areas of Orange County. The 11 participating cities include Brea, Cypress, Dana Point, Laguna Beach, Laguna Hills, Laguna Woods, La Palma, Los Alamitos, Seal Beach, Stanton, and Villa Park. These cities are not eligible to receive Community Planning and Development (CPD) program funds directly from the U.S. Department of Housing and Urban Development (HUD) and have opted to participate in the CPD programs through the County of Orange.

TABLE 5.4-6
RENTER HOUSEHOLDS WITH HOUSING COST BURDENS

Income Levels	Renter Households with Cost Burden Greater than 30 Percent				Renter Households with Cost Burden Greater than 50 Percent			
	0–30% AMI	30–50% AMI	50–80% AMI	Total	0–30% AMI	30–50% AMI	50–80% AMI	Total
Number of Households								
Small Related[a]	5,138	6,357	7,489	**18,984**	4,760	3,428	1,395	**9,583**
Large Related[b]	2,089	2,130	963	**5,182**	1,900	375	104	**2,379**
Elderly	5,144	3,669	2,798	**11,611**	4,444	2,689	820	**7,953**
Other	3,819	4,267	5,084	**13,170**	3,539	2,847	1,060	**7,446**
Total Need by Income	**16,190**	**16,423**	**16,334**	**48,947**	**14,643**	**9,339**	**3,379**	**27,361**

AMI: Average Median Income (of Orange County)

[a] Small related refers to a household with four or few people that are related to each other.
[b] Large related refers to a household with five or more people that are related to each other.

Source: County of Orange 2015

As shown in Table 5-6, the elderly population comprises approximately 24 percent of those in the 30 percent cost burden category and 29 percent in the 50 percent cost burden category. This equates to approximately 25 percent of the entire population identified as having a cost burden for rental housing. Based on this data, the Age-Qualified Alternative does not effectively align with the needs of the lower income population in Orange County. It would only serve the demand for affordable housing for the elderly, which constitutes only about ¼ of the overall need. Therefore, this alternative does not meet this objective.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of an environmentally superior alternative. Section 15126.6(e)(2) of the State CEQA Guidelines states that, if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The No Project would have the least impact to the environment because it would not involve any construction activities above what is assumed for the Ranch Plan and addressed in FEIR 589. The No Project Alternative would also not require the provision of additional public services and facilities and would not result in an increased demand for utilities or service systems. However, the No Project Alternative would not meet the Project Objectives or provide the benefits associated with the provision of affordable housing, which is needed in Orange County. The No Project Alternative would avoid the additional contribution to construction-related cumulative air quality emissions and the generation of GHG emissions in excess of the SCAQMD's project-level efficiency threshold.

In keeping with the requirements of CEQA to identify an environmentally superior alternative among the other alternatives, a comparison of the severity of the environmental impacts associated with the Project and the Age-Qualified Alternative was done, as well as a comparison

of each alternative's ability to meet the Project Objectives. It should be noted each of the three development scenarios using various levels of the Private-Sector Alternative (i.e., builder financing) would be applicable to both alternatives. Additionally, as part of the current action, there is not a request to select a specific development scenario. The extent to which the Private-Sector Alternative would be implemented would be determined based on the public-sector resources available at the time a Dedicated Lands site is made available.

As discussed above in Section 5.4.1, the Age-Qualified Alternative would have an incremental decrease in the amount of traffic generation, and therefore, the associated incremental decrease in the amount of long-term air quality emissions, and noise. There would also be a slight reduction in the demand for utilities and public services because the overall population served by the project would be less. The reduced population being served is due to smaller number of people per household in age-qualified housing. However, it should be noted that the Project would not result in significant impacts for these topical areas.

Both the Project and the Age-Qualified Alternative would contribute to significant cumulative construction air quality emissions. The key distinguishing factor between the alternatives is that the Age-Qualified Alternative would reduce the amount of GHG emissions associated with implementation of affordable housing for the Ranch Plan when compared to the Project; however, the impacts using the project-level threshold would remain significant and unavoidable for both alternatives. Therefore, overall the Age-Qualified Alternative would have less environmental impacts than the Project. However, as discussed above in Section 5.4.1, the Age-Qualified Alternative did not meet the Project Objectives as effectively as the Project.

Section 15021(a) of the State CEQA Guidelines, states, "CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible". Section 15021(d) of the State CEQA Guidelines further states, "a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian". Providing affordable housing is an important environmental concern. In light of this "duty to minimize environmental damage and balance competing public objectives", the abilities of each alternative to meet the Project Objectives was considered when recommending an alternative.

While both of the alternatives were able to effectively meet the first three Project Objectives, the Age-Qualified Alternative did not meet Objective 4, which is to provide affordable housing opportunities that meet the demand of a substantial portion of the lower income population in Orange County. The Age-Qualified Alternative would only serve the need of one segment (over 55 years old) of the lower income population that faces cost burden for housing, which represents approximately 25 percent of the total. The Age-Qualified Alternative would not address the affordable housing needs of a collective 75percent of the lower income population identified in the Consolidated Plan. In light of these considerations, the County is recommending the Project because it most effectively meets the Project objectives.

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6.0 LONG-TERM IMPLICATIONS OF THE PROJECT

6.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE MITIGATED

The environmental effects of the Project, under development Scenarios 1 through 3, and the No Project Alternative, are addressed in Sections 4.1 through 4.10 of this Program Environmental Impact Report (EIR). Implementation of the Project would contribute to a significant cumulative air quality impact from construction air emissions, and Greenhouse Gas Emissions (GHG) emissions that exceed the South Coast Air Quality Management District's (SCAQMD's) project-level threshold. These would be unavoidable significant impacts.

As discussed in Section 4.1, Air Quality, SCAQMD's basic policy with respect to cumulative impacts is that impacts that would be directly less than significant would also be cumulatively less than significant. However, the Ranch Plan had identified a significant unavoidable air quality impact associated with direct and cumulative construction emissions. It is acknowledged that development of the Affordable Housing sites would occur concurrently with development and construction of the remainder of the proposed development in each Planning Sub-Area of the Ranch Plan. Therefore, the conclusion was the Project would contribute to a potential for significant cumulative construction emissions.

Section 4.2, Greenhouse Gas Emissions, identified a significant, unavoidable impact under the project-level threshold. More than 80 percent of the operational GHG emissions would come from mobile sources (see Table 4.2-4). Though mitigation has been incorporated into the Project it was not feasible to reduce the net emissions to less than significant. The impacts of the Project for all the topical areas are discussed in Sections 4.1 through 4.10 and summarized in Table 1-1 in Section 1.0, Executive Summary.

6.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE CAUSED BY THE PROJECT

Section 15126(c) of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR describe any significant irreversible environmental changes that would occur as a result of the proposed action should it be implemented. Section 15126.2 of the State CEQA Guidelines describes the issues for this section as follows:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources make removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The environmental effects related to the implementation of the Project (i.e., all development scenarios) are analyzed in Sections 4.1 through 4.10 of this EIR. Implementation of the Project would convert existing undeveloped land to residential uses resulting in the long-term commitment of land resources to these uses. However, it should be noted, with the approval of the Ranch Plan Planned Community (the Ranch Plan), the Dedicated Land area that would compose the Affordable Housing sites was already committed to urban development, and would undergo some urbanization and some level of development (in conformity with Ranch Plan project approvals) regardless of whether the Project is implemented. Additionally, at the time the Project could be implemented, the sites would be graded with infrastructure improvements provided. Construction and long-term operation of the Project would require the commitment and reduction of nonrenewable and/or slowly renewable resources, including petroleum fuels and natural gas (for vehicle emissions, construction, lighting, heating, and cooling of structures) as well as lumber, sand/gravel, steel, copper, lead, and other metals (for use in the building construction, piping, and site infrastructure). Other resources that are slow to renew and/or recover from environmental stresses would also be impacted by Project implementation, such as air quality (through the combustion of fossil fuels and production of greenhouse gases) and water supply (through the increased potable water demands for drinking, cooking, cleaning, landscaping, and general maintenance needs). An increased commitment of public services (e.g., police, fire, schools, libraries, and sewer and water services) would also be required. Project development is an irreversible commitment of land, energy resources, and public services. After the 50- to 75-year structural lifespan of the buildings is reached, it is improbable that the site would revert to its current use due to the large capital investment that will already have been committed.

6.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

Pursuant to Sections 15126(d) and 15126.2(d) of the State CEQA Guidelines (14 *California Code of Regulations* [CCR]), this section is provided to examine (1) ways in which the Project could foster economic or population growth and (2) the construction of additional development, either directly or indirectly, in the surrounding environment. Per Section 15126.2(d) of the State CEQA Guidelines, growth-inducing effects are not necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this Project could contribute to significant changes in the environment.

When considering growth-inducing impacts, it is important to consider the context and historical growth trends of the area. There are many factors that can affect the amount, location, and rate of growth in Orange County and the region in general. These factors include market demand for housing, employment, and commercial services; the acknowledged desirability of climate and living/working environment and commercial economy; the availability of other services/infrastructure; and the land use and growth management policies of local jurisdictions.

Orange County has experienced significant growth in population over the past 50 years. Population in the County has increased from 703,928 in 1960 to an estimated 3,153,190 in 2015 (CDR 2014). Concurrent with significant increases in population, the economic character of Orange County has dramatically changed. The predominately rural/agricultural character of Orange County has changed to a diversified commercial/industrial economy. High technology industries, biomedical facilities, retail commercial, light manufacturing, administrative and financial services, and tourism have become major components of the County's economy. In

1965, the employment-to-population ratio was 22 percent. By 2015, the ratio had increased to approximately 51 percent countywide (note this was down from 54 percent in 2008, prior to the recession). Not only had the proportion of jobs to residents increased, but it was also based on a dramatically larger population. The growth in population and employment is projected to continue through 2040. Based on the *Orange County Projections 2014* (OCP-2014), developed by the Center for Demographic Research at California State University at Fullerton (CDR), between 2015 and 2040, an approximate 9.8 percent increase in population and a 16.9 percent increase in employment is projected to occur in Orange County (CDR 2014). Section 4.6, Population and Housing, provides a more detailed discussion of the OCP-2014 dataset.

To address this issue, potential growth-inducing effects are examined through analysis of the questions listed below.

1. **Would this Project remove obstacles to growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area or through changes in existing regulations pertaining to land development)?**

   The proposed Project would not provide new or improved major infrastructure that would remove obstacles to growth on site or in the surrounding region. As discussed in Sections 1.8 and 3.4.4, the Affordable Housing Implementation Agreement (AHIA) requires Rancho Mission Viejo (RMV) to provide the County of Orange with graded sites and to provide access and extend utilities to the Affordable Housing sites. Therefore, even though the sites are not currently graded, these improvements would be completed prior to Affordable Housing sites becoming available for the County to develop. The Project would provide the site improvements needed to develop the Affordable Housing sites. However, it would not result in an expansion of existing facilities (e.g., roadways, utilities, or services) in a manner that would facilitate additional growth beyond the immediate Affordable Housing site. The Project intends to utilize the infrastructure that would be built as part of the Ranch Plan to serve the additional affordable housing units. Development would be confined to the Planning Areas that were already identified as development areas as part of the Ranch Plan.

2. **Would this Project result in the need to expand one or more public services to maintain desired levels of service?**

   The proposed Project would result in new residential population that would increase demand for public services. However, as discussed in Section 4.7, Public Services, the Project would not necessitate the expansion of existing or planned public service facilities to maintain desired levels of service. Based on discussions with service providers, capacity at facilities serving the Ranch Plan would be sufficient to meet the needs of the additional residents introduced as part of the Project for all development scenarios. Facilities would not need to be expanded or created to meet the Project needs while maintaining desired levels of services.

3. **Would this Project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?**

   Project construction would result in a number of design, engineering, and construction-related jobs, which would last until Project construction is completed. This would provide

economic stimulus in the area; however, these jobs are typically filled by existing residents of the region and would not be substantial enough to foster other activities that would have significant effects on the environment.

As new residential uses are developed and occupied, residents of the proposed development would seek shopping, entertainment, employment, home improvements, auto maintenance, and other economic opportunities in the surrounding area. While some of these needs would be met by the proposed non-residential uses in the Ranch Plan project, others would rely on economic goods and services beyond the Project limits.[1] However, at buildout, the Project would represent a negligible amount of the future growth forecasts in the County by 2040 (the growth projections are discussed in Section 4.6, Population and Housing). Additionally, the proposed Project is located in proximity to existing employment and retail centers in the south Orange County region, which would address the employment and shopping needs of future residents. Therefore, even though the Project would generate an incremental economic growth in the County and provide additional revenue for the local jurisdictions as a result of the increased development, given the urban context of Orange County, the Project is not expected to generate economic activity to the level that would necessitate an expansion of resources and supporting industry that would have significant effects on the environment.

4. Would approval of this Project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

The Project would be implemented in conjunction with the Ranch Plan. The development levels in the overall Planned Community were established in 2004 as part of the General Plan Amendment and Zone Change approved by the Orange County Board of Supervisors. As indicated in FEIR 589, the Ranch Plan would not remove obstacles to growth in the surrounding counties or areas in Orange County; would not induce unplanned growth; would not encourage economic activities that would result in adverse impacts to the environment; and would not require the expansion of one or more public services to areas which were not already planned to receive such services. An important consideration in making this determination is the fact that the surrounding areas are either already developed or are within public ownership (e.g., Marine Corps Base Camp Pendleton, Caspers Wilderness Park, and the Cleveland National Forest). In addition, the surrounding developed areas are not of the age or nature where redevelopment would be likely in response to the Ranch Plan. These same factors would apply to the proposed Project. The incremental increase of development permitted by the AHIA would not place undue pressures to expand infrastructure to the area or substantially expand the economic base of the area (see discussion above). The Project is unique and not subject to replication in its location, ownership, or processing. Therefore, the Project would not result in a precedent-setting action that would significantly affect the environment.

[1] As discussed in Section 2.6.1, the Ranch Plan approvals allow for the construction of 14,000 dwelling units, 3,480,000 square feet of Urban Activity Center (UAC), 500,000 square feet of Neighborhood Center, and 1,220,000 square feet of business park uses. As part of this development, it is anticipating that there would be a wide range of retail, services, and employment available within the community. However, residents would reasonably rely on other locations for specialty shops or purchases, such as cars.

6.4 ENERGY

Section 21100(b)(3) of the California Public Resources Code and Appendix F to the State CEQA Guidelines require a discussion of potential energy impacts of proposed projects. Appendix F states:

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

(1) Decreasing overall per capita energy consumption,

(2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and

(3) Increasing reliance on renewable energy sources.

Appendix F of the State CEQA Guidelines also identifies that "EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy".

San Diego Gas and Electric (SDG&E) and the Southern California Gas Company (SoCalGas) are utility companies that would provide electrical and natural gas services to the Project sites. Final plans for electrical and natural gas services would be designed and installed in compliance with applicable SDG&E and SoCalGas requirements. Compliance with energy efficiency and conservation policies and regulations is discussed in this section.

Section 4.4, Land Use and Planning, identifies that the County of Orange General Plan Resources Element, Energy Resources Component Goals, Objectives and Policies (Goal 1, Goal 3 – Objectives 3.1 and 3.2, Policy 1, and Policy 3) promote energy conservation and wise use, incorporating the use of energy conservation measures and reduce transportation demand as part of implementing future growth in the County. The consistency of the proposed Project with these goals and policies is discussed in Section 4.4, Land Use and Planning, of this EIR.

6.4.1 CONSTRUCTION

Project construction would require the use of construction equipment for grading and building activities; all off-road construction equipment is assumed to use diesel fuel. Construction also includes the vehicles of construction workers and vendors traveling to and from the Project site.

Fuel energy consumed during construction would be temporary in nature and there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the region or state.

To decrease overall per capita energy consumption and use of fossil fuels, the Project would implement mitigation measure (MM) AQ-1, stated in detail in Section 4.1, Air Quality. MM AQ-1 would require the use of utility electrical power for construction equipment instead of diesel or gasoline-fueled generators; establish truck traffic plans to reduce truck operating time; and encourage construction workers to ride share for commuting. MM AQ-1 also requires the use of recycled water, where available, for dust control, thereby reducing the indirect electrical energy use for water supply, treatment, and distribution by an estimated 81 percent.

Therefore, each of the three Project development scenarios includes features that would decrease reliance on fossil fuels and decrease overall per capita energy consumption for construction activities.

6.4.2 OPERATIONS

As identified in Section 4.2, Greenhouse Gas Emissions, Title 24 of the *California Code of Regulations* (CCR, specifically, Part 6) is California's Energy Efficiency Standards for Residential and Non-residential Buildings. Title 24 was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and to provide energy efficiency standards for residential and non-residential buildings. The current applicable standards are the 2013 Standards, effective July 1, 2014. The 2016 standards are planned to be released in 2016 to be effective January 1, 2017.

The 2013 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen code, contains mandatory requirements for new residential buildings throughout California. The development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The proposed Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 and CALGreen). It is assumed that the 2016 energy efficiency standards (or later versions requiring further reductions in net energy use) would be required for the Project. Analysis by the CEC concludes that the 2016 energy efficiency standards will be at least 28 percent more efficient than the current 2013 standards (CEC 2016).

The Affordable Housing sites would be located in a compact, mixed-use community. The availability of nearby commercial and employment uses would encourage non-vehicular travel modes (i.e. walking and bicycling) and, for those who choose to drive, would allow shorter trips than in residential-only (non mixed-use) communities.

Landscaping irrigation for the Project sites would use recycled water, thereby reducing the indirect electrical energy use for water supply, treatment, and distribution by an estimated 81 percent.

Therefore, each of the three Project development scenarios includes features that would decrease reliance on fossil fuels and decrease overall per capita energy consumption for operations.

6.5 REFERENCES

California Energy Commission (CEC) 2016 (January, access date). 2016 Building Energy Efficiency Standards, Frequently Asked Questions. Sacramento, CA: CEC. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf.

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———. 2004. *The Ranch Plan Final EIR 589.* Santa Ana, CA: the County.

———. 2013 (December, adopted). *County of Orange Housing Element.* Santa Ana, CA: the County. http://ocplanning.net/civicax/filebank/blobdload.aspx?blobid=33606

7.0 LIST OF PERSONS CONSULTED

7.1.1 ORANGE COUNTY FIRE AUTHORITY

Tamera Rivers..... Management Analyst

7.1.2 ORANGE COUNTY SHERIFF'S DEPARTMENT

Jonathan Bordeaux..... Real Estate Manager

7.1.3 CAPISTRANO UNIFIED SCHOOL DISTRICT

Madelynn Vesque .....Enrollment Technician

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8.0 LIST OF PREPARERS

8.1 COUNTY OF ORANGE

8.1.1 OC PUBLIC WORKS

Development Services

Rose Fistrovic ..... Manager of Land Development

Steven Soo ..... Project Manager

OC Housing and Community Development

Julia Bidwell ..... Manager of OC Community Services

John Viafora ..... Manager of Homeless Program

OC Traffic

Isaac Alonso Rice, P.E., T.E. ..... County Traffic Engineer

8.2 CONSULTANTS

8.2.1 BONTERRA PSOMAS

Kathleen Brady, AICP ..... Principal

Jennifer Marks ..... Senior Project Manager

James Kurtz ..... Director, Air Quality, Noise, and Greenhouse Gases

Angela Schnapp ..... Senior Environmental Manager

Jeffrey Gershon ..... Environmental Analyst

David Shu ..... Noise and Vibration Specialist

Julia R. Black ..... Technical Writer

Sheryl A. Kristal ..... Senior Word Processor

Jon Zimmer ..... Senior GIS Analyst

8.2.2 PSOMAS

Mike Swan.....Senior Project Manager, Water and Wastewater

8.2.3 STANTEC

Daryl Zerfass, PE, PTP..... Principal

Kendall Elmer..... Transportation Specialist

Appendix A

NOP/IS and NOP Comment Letters

ORANGE COUNTY PUBLIC WORKS
300 NORTH FLOWER STREET
SANTA ANA, CALIFORNIA 92703

NOTICE OF PREPARATION AND NOTICE OF SCOPING MEETING

DATE:	May 20, 2015
SUBJECT:	Notice of Preparation of a Program Environmental Impact Report 623 and Notice of Scoping Meeting
PROJECT TITLE:	Orange County Affordable Housing Implementation Program (IP# 15-157)
APPLICANT:	OC Public Works/OC Planning 300 North Flower Street, Santa Ana, CA 92703 Rose Fistrovic (714) 667-8858

Notice is hereby given pursuant to Section 15082 of the State California Environmental Quality Act (CEQA) Guidelines (*California Code of Regulations,* Title. 14, §15000 et seq.) that the County of Orange has determined that a Program Environmental Impact Report (Program EIR) is the appropriate environmental document for the Orange County Affordable Housing Implementation Program Project (Project). The County of Orange (County) will be the Lead Agency for the Project and will be responsible for the Program EIR's preparation pursuant to CEQA and the State CEQA Guidelines. The Project's description, location, and an analysis of probable environmental effects are contained in the attached materials.

As required by Section 15082 of the State CEQA Guidelines, this Notice of Preparation (NOP) has been prepared and distributed to solicit comments from potential Responsible and Trustee Agencies on Project-related concerns relevant to each agency's statutory responsibilities. Given the nature of the Project, it has been determined to meet the definition of a project of regional and areawide significance pursuant to Section 15206 of the State CEQA Guidelines. Comments on the content and scope of the Program EIR also are solicited from any other interested parties (including other agencies and affected members of the public). The Program EIR will be the environmental document of reference for Responsible and Trustee Agencies when considering subsequent discretionary approvals.

The County requests that any potential Responsible or Trustee Agencies responding to this NOP reply in a manner consistent with Section 15082(b) of the State CEQA Guidelines, which allows for the submittal of any comments in response to this notice no later than 30 days after receipt of the NOP. The County will accept comments from these Agencies and others regarding this NOP through the close of business on June 19, 2015.

This NOP is available for viewing at www.ocplanning.net and on the attached CD. In addition, a Scoping Meeting, which will be conducted using an open house format (no formal presentation) will be held on June 2, 2015 from 5:30 PM to 7:30 PM at the Santa Margarita Water District Board Room at the address listed below. Staff will be available to take your comments regarding the project.

Santa Margarita Water District Board Room
26111 Antonio Parkway
Rancho Santa Margarita, CA 92688

Your agency and other interested parties are invited to attend and submit comments for consideration during preparation of the Program EIR. All comments and responses to this NOP must be submitted in writing to:

Ms. Rose Fistrovic
OC Public Works/OC Planning
300 North Flower Street,
Santa Ana, CA 92703
Rose.Fistrovic@ocpw.ocgov.com

Submitted by:

Rose Fistrovic

Orange County Affordable Housing Implementation Program

The County of Orange (County) is the Project proponent and will be the Lead Agency under the California Environmental Quality Act (CEQA) for the preparation of a Program Environmental Impact Report (Program EIR) for the Orange County Affordable Housing Implementation Program (Project). Section 15168 of the State CEQA Guidelines states the following:

> [a Program EIR] . . . may be prepared on a series of actions that can be characterized as one large project and are related either: (1) Geographically, (2) As logical parts in the chain of contemplated actions, (3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program, or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

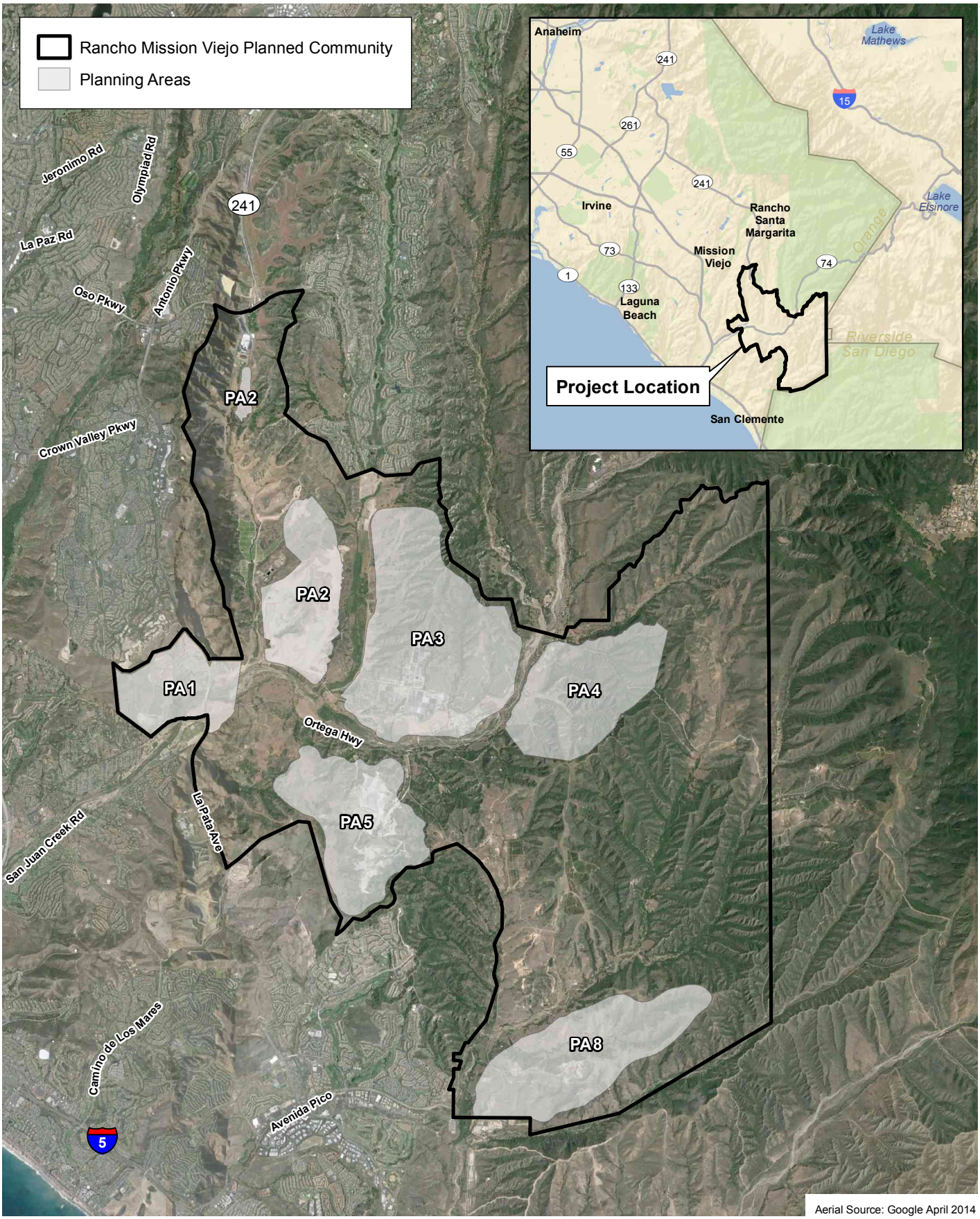
Project Location

The Project would be implemented within the Ranch Plan Planned Community located in unincorporated southern Orange County. The Ranch Plan Planned Community is adjacent to the planned community of Ladera Ranch and the cities of San Juan Capistrano, and San Clemente on the west; the city of Rancho Santa Margarita on the north; Marine Corps Base (MCB) Camp Pendleton in San Diego County on the south; and Caspers Wilderness Park and the Cleveland National Forest on the property's eastern edge. The regional location and local vicinity maps are depicted in Exhibit 1.

Project Background and Related History

On November 8, 2004, the Orange County Board of Supervisors approved the Ranch Plan Planned Community and associated *Ranch Plan Planned Community Program Text*, a General Plan Amendment, a Planned Community Zone Change, and a Development Agreement. In addition, the Board certified *The Ranch Plan Program Environmental Impact Report No. 589* (FEIR 589). The Ranch Plan Planned Community allows for the construction of 14,000 dwelling units, 3,480,000 square feet (sf) of Urban Activity Center (UAC) uses, 500,000 sf of Neighborhood Center uses, and 1,220,000 sf of business park uses. Approximately 75 percent of the Ranch Plan Planned Community site will remain in permanent open space.

The concept for the Ranch Plan Planned Community was developed in coordination with the Orange County Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (herein referred to as the "Southern Subregion HCP" or "SSHCP") and the San Juan Creek and Western San Mateo Creek Watershed Special Area Management Plan (SAMP) planning programs to ensure that the Ranch Plan Planned Community was consistent with the draft planning guidelines and principles formulated to address biological and water resources in the larger subregion. The SSHCP is a voluntary, collaborative planning program involving landowners, local governments, State and federal agencies, environmental organizations, and interested members of the public. The purpose of the SSHCP is to provide long-term, large-scale



Aerial Source: Google April 2014

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Regional and Local Vicinity Map

Exhibit 1

Orange County Affordable Housing Implementation Program

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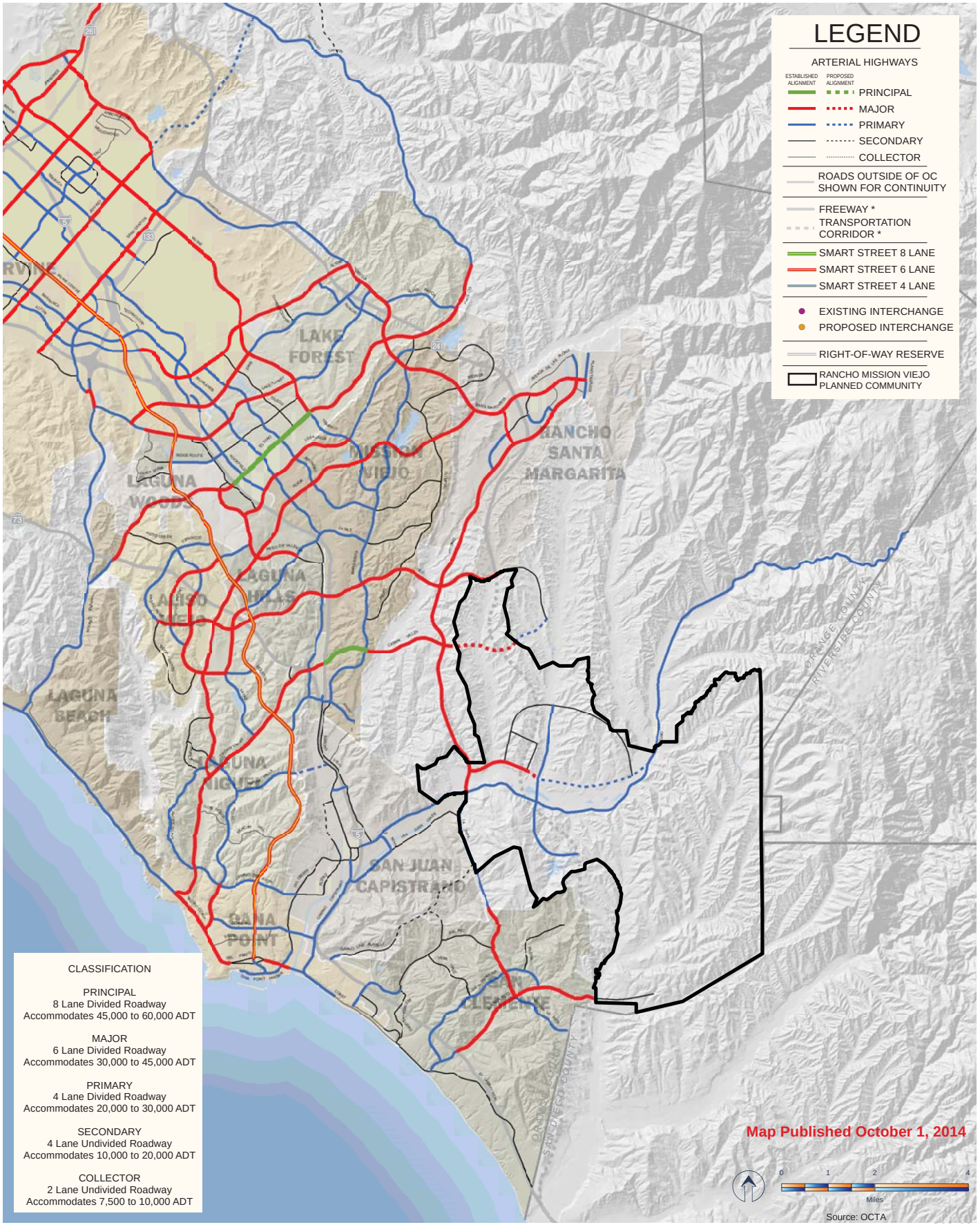

Master Plan of Arterial Highways

Exhibit 2

Orange County Affordable Housing Implementation Program

BonTerra PSOMAS

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protection of natural vegetation communities and wildlife diversity while allowing compatible land uses and appropriate development and growth. The purpose of a SAMP is to provide for reasonable economic development and the protection and long-term management of sensitive aquatic resources (biological and hydrological). Under a SAMP, to the extent feasible, federal "waters of the U.S." (including wetlands) are avoided and unavoidable impacts are minimized and fully mitigated. These programs are discussed further in the Initial Study.

As part of the overall approval process for the Ranch Plan Planned Community, an Affordable Housing Implementation Agreement (AHIA) was developed pursuant to the Ranch Plan Development Agreement (RPDA). The AHIA generally requires Rancho Mission Viejo (RMV) to provide the County with developable land at various sites within the Ranch Plan Planned Community ranging in size from 2 to 10 acres, for a total of 60 gross acres of property (Dedicated Land) for rental units for low and very-low income households and restricted to such use for a period of 55 years. RMV would grade the sites; provide access; and extend utilities to the parcels and be compensated by the County for infrastructure costs. It is the County's responsibility, with input from RMV, to obtain the builder for the Affordable Housing Project who will be responsible for all on-site improvements. In addition, the County is responsible for preparing the CEQA documentation for the Affordable Housing Project's dwelling units, which are assumed to be over and above the 14,000 dwelling unit cap of the Ranch Plan Planned Community. The County is responsible for all costs associated with mitigating impacts associated with the affordable housing units.

The *Ranch Plan Planned Community Program Text* states that Affordable Housing sites will be identified as part of the Subarea Plans or subsequent Subarea Plan amendments. Currently, RMV has processed the Master Area Plans and Subarea Plans for Planning Areas 1 through 4. Multiple affordable housing sites have been identified in Planning Areas 2 through 4. Though no affordable housing sites were initially identified in Planning Area 1, as discussed below, RMV has entered into an agreement with the County for the development of a site in Planning Area 1.

The AHIA outlines the process and required timeframes for the various steps required for County-provided affordable housing in the Ranch Plan Planned Community. Once RMV provides the required notice and information to the County for a specific housing site (Housing Site), if the County chooses to proceed with development, the acreage is deducted from the 60-acre total and RMV's obligation under the RPDA and AHIA for that Housing Site is deemed complete. Should the County not be able to perform in the specified timeframes on the Housing Site, the land is returned to RMV for development consistent with the Ranch Plan Planned Community approvals. Replacement of the reverted acreage is not required.

With the loss of redevelopment funds to potentially assist in the construction of affordable housing, the County explored alternative methods of developing the affordable housing units. In December 2013, the County amended the AHIA to allow an option for private sector financing to provide the affordable units on the Ranch. This method would allow for RMV to enter into a long-term ground lease with an affordable housing builder. The lease would restrict the use of the site to low and very low income households for a period of 55 years. RMV would also record an Irrevocable Offer of Dedication (IOD) which would allow the County to obtain the Housing Site after 15 years (but not later than 55 years) following

recordation of the IOD. With this approach, RMV would provide all required infrastructure at no cost to the County. In exchange for the financial benefits to the County, under the private sector approach, RMV would get a credit toward the Dedicated Land equal to the actual gross acreage of the housing site(s) subject to the ground lease multiplied by a factor of two (for example, a five-gross-acre parcel that is developed under this approach would receive a Dedicated Land Credit of ten gross acres). This approach would allow for the transfer of the ground lease to the County in the event of County's acceptance of the IOD.

As part of the amendment to the AHIA, the Board authorized the private sector financing approach for the sites in Planning Area 1 and Planning Subarea 2.1. The amended AHIA also has a provision that, in approving the private sector financing approach for Planning Area 1, the County will have no responsibility for providing Project Mitigation for the Housing Site in Planning Area 1. With regard to the Housing Site in Planning Subarea 2.1, the County would not be required to provide any additional mitigation beyond those measures identified for the cumulative effects of the affordable housing projects outlined in the Program EIR. However, the County will continue to be responsible for all Project mitigation related to affordable housing projects in any other Planning Areas or Subareas of the Ranch Plan.

Project Setting

The Project will be located within the development boundaries of the Ranch Plan Planned Community. The Ranch Plan Planned Community encompasses 22,683 acres, of which 5,573 acres are slated for development. The remainder of the Planned Community will be retained in open space. Substantial portions of the 22,683-acre Project site have been used for ranching and agricultural uses for the past 130 years, and these uses continue today. Commercial nursery operations, research and development uses, various industrial uses, and natural resources extraction are ongoing activities on the Ranch through lease agreements.

Circulation facilities in Ranch Plan Planned Community include State Route (SR) 74, also known as Ortega Highway, which runs in an east-west direction through the Planned Community and connects Riverside County to the east with Interstate (I) 5 to the west. Antonio Parkway/La Pata Avenue is a north-south arterial highway that extends through the western portion of the Project site. Antonio Parkway begins north of the Ranch Plan Planned Community in the city of Rancho Santa Margarita, extends through the Las Flores and Ladera Ranch communities, and enters the Project site. At Ortega Highway, Antonio Parkway turns into La Pata Avenue where it currently terminates at the Prima Deshecha Landfill; however, the extension of La Pata Avenue (known as Avenida La Pata in the city of San Clemente) is currently under construction and is expected to be completed in 2016. Cow Camp Road, also under construction, will provide another east-west route north of San Juan Creek. Cow Camp Road will extend from Antonio Parkway to Ortega Highway in the vicinity of Caspers Wilderness Park. The proposed SR-241 extension south from Oso Parkway to Cow Camp Road would provide an additional north-south route. FEIR 589 provided for an arterial highway (previously referred to as "F" Street, now identified as Los Patrones Parkway) along this alignment if the proposed extension of SR-241 is not constructed. Other roadways will be constructed in conjunction with the development of the Ranch Plan Planned Community.

The planned roadways are depicted on the Orange County Master Plan of Arterial Highways (MPAH) (see Exhibit 2).[1]

Several creeks are located within the Project site boundaries. Just north of Ortega Highway, San Juan Creek flows in an east-west direction through the site. San Juan Creek is a major drainage basin that discharges into the Pacific Ocean in the vicinity of the city of Dana Point. Major tributaries to San Juan Creek are Arroyo Trabuco, Oso Creek, Cañada Chiquita, Cañada Gobernadora, Bell Canyon Creek, and Verdugo Canyon Creek. Cristianitos Creek is located south of Ortega Highway and traverses the Project site in a north-south direction. Major tributaries to Cristianitos Creek on the Project site are Gabino Canyon Creek, La Paz Creek, and Talega Canyon Creek. Cristianitos Creek is in the western portion of the San Mateo Creek Watershed.

Development in the Ranch Plan Planned Community will occur in six Planning Areas. Grading of Planning Area 1, known as the Village of Sendaro, was initiated in 2011. This planning area was approved for 1,287 dwelling units and 300,000 sf of non-residential uses in the Urban Activity Center (UAC) designation, and 95,000 square feet of neighborhood center. The first units were available for sale in June 2013. The Master Area Plan for Planning Area 2 and Subarea Plans for four of the five subareas were approved in March 2013. Planning Area 2 has been approved for 3,291 dwelling units, 500,000 sf of non-residential uses in the UAC designation, and 25,000 sf of Neighborhood Center uses. Grading of Planning Area 2 was initiated in late 2013. The first developments in Planning Area 2 are expected to be open for sale in late summer/early fall 2015. The Master Area Plan and Subarea Plans for Planning Areas 3 and 4 were approved in February 2015. A total of 7,500 dwelling units, 2,950,000 sf of non-residential uses in the UAC designation, and 145,000 sf of Neighborhood Center uses have been approved within these two planning areas. The timing for construction has not been determined. No Master Area Plans or Subarea Plans have been processed for Planning Areas 5 and 8.

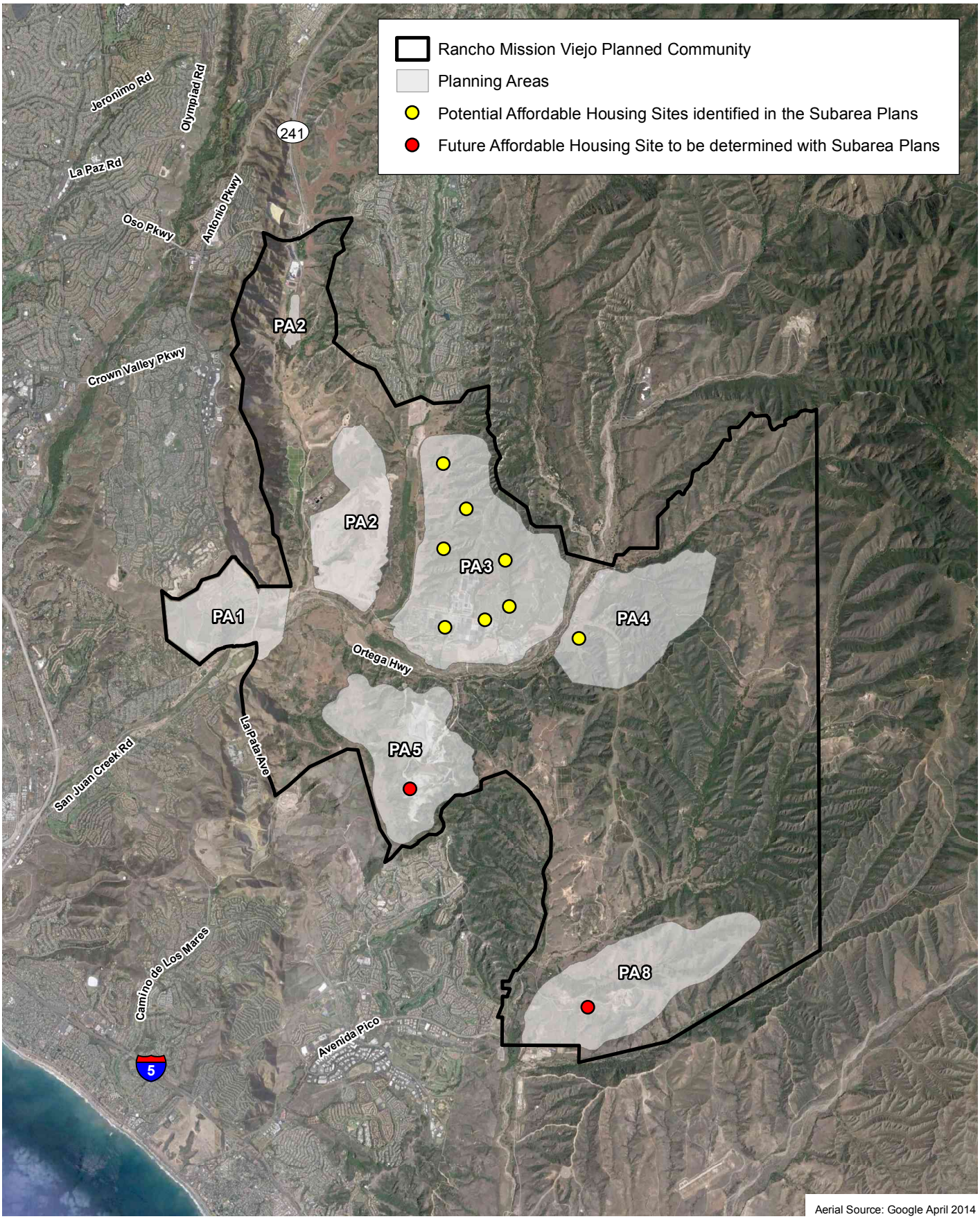
Description of the Project

As provided for in the AHIA, RMV will set aside land for the development of rental housing for low and very low income households[2] in conjunction with the development of the Ranch Plan Planned Community. Development of this rental housing will be constructed at no less than 25 dwelling units per net acre.[3] The housing sites will be between two and ten acres in size and distributed throughout the planning areas. Exhibit 3 depicts the Planning Areas

1 Within the Ranch Plan area, the MPAH has streets designated by letters to reflect a planned circulation network. These streets will be renamed as development occurs.

2 The Orange County Housing Element defines Very Low Income as households earning 50 percent or less of the Area Median Income (AMI) and Low Income as households earning 51 to 80 percent of AMI. A "household" consists of all the people occupying a dwelling unit, whether or not they are related. The U.S. Census Bureau identifies the median household income for Orange County between 2009 and 2013 as $75,422 (County of Orange 2013a; U.S. Census Bureau 2014).

3 The dedication requirement in the AHIA is based on gross acres; however, it establishes a minimum 25 dwelling units per net acre density. At this point in time the site plans for all of the sites have not been established so there is not a way of determining the overall number of net acres associated with the various affordable housing parcels. For purposes of this EIR, the analyses assumes a minimum of 25 dwelling units per gross acre will be provided. Though the number of net acres will be less than gross acres associated with each of the site, for a Program EIR this is a reasonable assumption and allows some flexibility should the density be net acre slightly exceed 25 dwelling units per acre. The total number of units would not be substantially different.



Aerial Source: Google April 2014

Potential Affordable Housing Sites

Exhibit 3

Orange County Affordable Housing Implementation Program

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within the Ranch Plan Planned Community and approximate location of Affordable Housing sites being addressed in this Program EIR.[4]

The County has identified a range of dwelling units on the aggregate of Affordable Housing sites in the Ranch Plan Planned Community, which reflect various implementation strategies. Rather than address a single "Proposed Project", the Program EIR will address three development alternatives and the No Project Alternative at a comparable level of detail within the body of the report. The three development alternatives being evaluated provide a range in the number of units based on the amount of acreage developed using the private sector financing option.

The 3.4-gross acre site in Planning Area 1 and a 4.4-gross acre site in Planning Subarea 2.1 are being developed using the private sector financing option, providing 7.8 gross acres and an additional 7.8 acres of credit for private financing. As a result, the aggregate 60 gross acres for affordable housing provided for in the RPDA and AHIA is now reduced to a total of 52.2 gross acres with a total of 44.4 acres remaining to be developed.[5] The alternatives for these 44.4 gross acres are discussed below. The projects in Planning Areas 1 and 2.1 are covered under previous CEQA documents. This Program EIR will address the affordable housing development in Planning Areas 1 and 2 as cumulative projects.

Project Alternatives

Alternative 1: Private Sector Financing Alternative

This alternative assumes that the County would enter into agreements for RMV to implement all of the affordable housing units within the Ranch Plan Planned Community using private-sector financing. As such, a total of 22.2 gross acres of affordable housing would be provided, netting approximately 555 additional affordable units. A 22.2-gross-acre credit would be granted for private sector financing. The affordable housing would be distributed throughout the remaining Planning Areas slated for development. The expected acreage distribution for the units by Planning Area is provided in Table 1. All development would comply with the requirements outlined in the *Ranch Plan Planned Community Program Text.*

Alternative 2: Combined Public and Private Sector Financing Alternative

This alternative assumes that the County would expand private sector financing to cover a third of the remaining acres required for affordable housing (equivalent to 14.8 acres); an additional third (14.8 acres) would be developed using public financing; and the remaining third (14.8 acres) would be the credit allowed for use of private financing. As a result, 29.6 gross acres of affordable housing would be developed and 14.8 gross acres of credit for private financing would be granted. This alternative would provide approximately an additional 740 units. The affordable housing would be distributed throughout each of the

[4] The Affordable Housing locations in Planning Areas 1 and 2 are based on the locations established based on the Amended AHIA. The locations in Planning Areas 3 and 4 are based on the approved Subarea Plans. Affordable Housing sites for Planning Areas 5 and 8 have not been identified because the Subarea Plans have not been processed for those two Planning Areas.

[5] The 44.4 gross acres of affordable housing remaining to be developed is derived by subtracting the 7.8 gross acres of affordable housing already being developed in Planning Areas 1 and 2 and the 7.8 acres of credit for the use of private financing. The total is equivalent to the 60 gross acres required by the AHIA, as amended.

Planning Areas slated for development. The expected acreage distribution for the units by Planning Area is provided in Table 1. All development would comply with the requirements outlined in the *Ranch Plan Planned Community Program Text.*

Alternative 3: Minimum Private Sector Financing Consistent with the Amended AHIA

This alternative assumes RMV would not implement any additional affordable housing per the amended AHIA. The remaining affordable housing sites would be developed by the County using public financing sources. As such, a total of 44.4 gross acres of affordable housing, providing approximately an additional 1,110 units, would be provided. As with the other alternatives, affordable housing would be distributed throughout each of the remaining Planning Areas slated for development (see Table 1). All development would comply with the requirements outlined in the *Ranch Plan Planned Community Program Text.*

No Project Alternative

The No Project Alternative assumes that the affordable housing would not be provided. The property offered for Affordable Housing pursuant to the AHIA would be returned to RMV; however, no additional development beyond the approvals provided in the Ranch Plan would be allowed.

Table 1
Affordable Housing Gross Acreage and Unit Assumption
by Planning Area

Planning Area[a]	Alternative 1 Private Sector Financing Alternative			Alternative 2 Combined Private/Public Sector Financing Alternative			Alternative 3 Minimum Private Sector Financing Alternative		
	AH Acres	Acres of Credit[b]	du Built	AH Acres	Acres of Credit[b]	du Built	AH Acres	Acres of Credit[b]	du Built
3	13.2	13.2	330	20.6	14.8	515	35.4	0	885
4	3.0	3.0	75	3.0	0	75	3.0	0	75
5	3.0	3.0	75	3.0	0	75	3.0	0	75
8	3.0	3.0	75	3.0	0	75	3.0	0	75
Totals	**22.2**	**22.2**	**555**	**29.6**	**14.8**	**740**	**44.4**	**0**	**1,110**

AH: Affordable Housing; du: Dwelling Units

[a] These are the only Planning Areas in the Ranch Plan Planned Community that are approved for development.
[b] Reflects the number of acres developed using private sector financing, resulting in an equivalent credit toward the total number of gross acres required.

Alternative CEQA Baseline

The State CEQA Guidelines, Section 15125 states that "an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published…. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." However, case law has found that a lead agency can justify departing from that norm when necessary to prevent misinforming or misleading the public and decision

makers. (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* 57 Cal.4th 439 [2013]).

The case law further states "an existing conditions analysis may take account of environmental conditions that will exist when the project begins operations; the agency is not strictly limited to those prevailing during the period of EIR preparation. An agency may, where appropriate, adjust its existing conditions baseline to account for a major change in environmental conditions that is expected to occur before project implementation. In so adjusting its existing conditions baseline, an agency exercises its discretion on how best to define such a baseline under the circumstance of rapidly changing environmental conditions." (*Communities for a Better Environment*, supra, 48 Cal.4th at p. 328.)

Given the circumstances under which the Affordable Housing Project will be implemented, the County of Orange has established an alternative baseline that assumes the implementation of the Ranch Plan Planned Community as part of the baseline conditions. An evaluation of impacts using an existing conditions baseline would not accurately reflect the true impacts of the Project. This alternative baseline is justified because the provisions of the AHIA requires RMV to provide the County of Orange with graded sites; provide access; and extend utilities to the parcels. The impacts associated with the site preparation are addressed through FEIR 589 and would have CEQA and regulatory permit compliance prior to issuance of a grading permit. The mitigation associated with the site preparation is the responsibility of RMV. The County would not have a project to implement until these activities have been completed because they are required to occur prior to the County accepting the affordable housing sites. The impacts associated with the following topics would be overstated if existing (undeveloped) conditions were to be used as the Project baseline:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Mineral Resources (Planning Area 5, only)

The RPDA and the AHIA further state that the affordable housing dwelling units are assumed to be over and above the 14,000 dwelling unit cap of the Ranch Plan Planned Community. Mitigation of all costs associated with the mitigation of impacts associated with the affordable housing units is the responsibility of the County of Orange. Therefore, to avoid underestimating the circulation impacts, it is important to have the traffic baseline assume full build out of the Ranch Plan Planned Community.

Anticipated Project Approvals

As a Program EIR, the document to be prepared would address the overall impacts associated with the Project. Subsequent approvals would include site development permits, landscape plans, and building permits. These are discretionary approvals and are subject to the requirements of CEQA. It is intended that the County of Orange would utilize this Program EIR for their approvals; however, subsequent review and documentation may be required pursuant to CEQA Guidelines Section 15162.

Anticipated Schedule

The Project schedule, as currently envisioned, contemplates that the draft Program EIR will be available for public review in late 2015. A 45-day public review period will be provided, after which responses to comments received will be prepared. The Orange County Planning Commission will then hold a public hearing and make a recommendation on certification of the Program EIR to the Board of Supervisors. The Orange County Planning Commission hearing is expected to be scheduled in the first quarter of 2016, with the Board of Supervisors taking action on the Project shortly thereafter.

Project implementation will be determined based on the Ranch Plan Planned Community's development phasing. Housing sites would come available to the County as the Ranch Plan Planned Community development is implemented. The first affordable housing sites being implemented in Planning Area 1 and Subarea 2.1 under the private sector financing option are expected to start construction in 2015 and 2016, respectively. The schedule for the remaining acreage has not been determined. The AHIA commits RMV to providing housing sites based on the issuance of building permits for specific development milestones tied to equivalent dwelling units (EDUs). The accumulated EDU for the Ranch Plan Planned Community development is monitored by an Annual Monitoring Report (AMR) prepared by RMV and reviewed by the County of Orange.

Probable Environmental Effects of the Project

Until the Program EIR analysis is completed, it is not possible to identify with precision the probable environmental effects of the Project. However, the County has performed an Initial Study (a copy of which is attached to this notice) to identify the reasonably foreseeable and potentially significant adverse environmental effects of the Project, which the County believes require further and more detailed analysis in the Program EIR. The County has identified the following specific topics as requiring detailed Program EIR analysis due to potentially significant impacts:

- Air Quality
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Public Services
- Transportation/Traffic

Additionally, while the Initial Study concludes that significant Project impacts are not anticipated, the County intends to provide more detailed information on the following topics in the Program EIR:

- Hydrology and Water Quality
- Population and Housing (growth inducing impacts)
- Recreation
- Utilities and Service Systems

Based on the Initial Study, the Project would not result in any potentially significant effects with respect to the topical issues listed below. The issues have been scoped out of the Program EIR because the County will be provided graded building pads and all impacts to these resources would have been fully addressed in Final EIR 589:

- Aesthetics
- Agricultural and Forestry Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Mineral Resources

Conclusion

The County requests the public's careful review and consideration of this notice, and it invites any and all input and comments from interested agencies and persons regarding the preparation and scope of the draft Program EIR.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Program Environmental Impact Report # 623; IP # 15-157

Orange County Affordable Housing Implementation Program

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture/Forestry Res.	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☒ Greenhouse Gas Emiss.	☐ Hazards/Hazardous Mat.	☐ Hydrology/Water Quality
☒ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☒ Transportation/Traffic	☒ Utilities/Service Systems	☒ Mandatory Findings

DETERMINATION: (To be completed by the Lead Agency) On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION (ND) will be prepared pursuant to CEQA Guidelines Article 6, 15070 through 15075.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION (MND) will be prepared pursuant to CEQA Guidelines Article 6, Sec. 15070 through 15075.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.

☒ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

☐ I find that although the proposed project could have a significant effect on the environment, because potentially effects 1) have been analyzed adequately in an earlier EIR or ND/MND pursuant to applicable legal standards and 2) have been avoided or mitigated pursuant to that earlier EIR/ND/MND, including revisions or mitigation measures that are imposed upon the project, MINOR ADDITIONS AND/OR CLARIFICATIONS are needed to make the previous documentation adequate to cover the project which are documented in this Addendum to the earlier CEQA Document (Sec. 15164)

Signature: Rose Fistrovic 5/15/15

Name: Rose Fistrovic Date

ENVIRONMENTAL ANALYSIS CHECKLIST

Program Environmental Impact Report # 623

Orange County Affordable Housing Implementation Program

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
1. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
2. AGRICULTURE & FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion forest land to non-forest use?	☐	☐	☐	☒
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
4. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
5. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☒
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
6. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
7. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐
8. HAZARDS & HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐
9. HYDROLOGY & WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
10. LAND USE & PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐	☐
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
11. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒
12. NOISE. Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working the project area to excessive noise levels?	☐	☐	☐	☒

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
13. POPULATION & HOUSING. Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
14. PUBLIC SERVICES.				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐
15. RECREATION.				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐
16. TRANSPORTATION/TRAFFIC. Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b. Conflict with an applicable congestion management program, including, but not	☒	☐	☐	☐

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
17. UTILITIES & SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐	☐	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	☐	☐	☐	☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state and local statutes and regulations related to solid waste?	☐	☐	☒	☐

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
18. MANDATORY FINDINGS				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c. Does project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

NOTE: All referenced and/or incorporated documents may be reviewed by appointment only, at the County of Orange Public Works Department, 300 N. Flower Street, Santa Ana, California, unless otherwise specified. An appointment can be made by contacting the CEQA Contact Person identified above.

CUD: Revised 01/2014

Introduction

The Program EIR will be addressing the three alternatives and the No Project Alternative at a comparable level of detail. If any alternative will have an impact (direct or cumulative), it will be discussed in the Program EIR. As such, any reference to the "Project" in this Initial Study is a reference to all alternatives (see Table 1).

This Project is somewhat unique in that AHIA requires that RMV provide the County with graded building sites. Therefore, many of the impacts often associated with the construction of housing would have occurred prior to the land being offered to the County and have been addressed in FEIR 589 prepared for the Ranch Plan Planned Community. Therefore, no further evaluation of these issues is required in this Program EIR. This would apply to the following topical areas:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Mineral Resources

1. AESTHETICS

a) Would the project have a substantial adverse effect on a scenic vista?

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. There are no designated scenic vistas within the Ranch Plan Planned Community limits; however, there are numerous locations with views of the Ranch Plan Planned Community project site. The Affordable Housing Project would be constructed within the development areas already approved as part of the Ranch Plan Planned Community. The building sites would be provided to the County already graded. The additional development provided as part of the Project would be viewed in the context of the larger Ranch Plan Planned Community. As such, the overall general character of the site and views from surrounding areas would not be substantially different with implementation of the Project.

The affordable housing products would need to comply with the design requirements provided for in the *Ranch Plan Planned Community Program Text.* The Project would be visually consistent with the visual character of the Ranch Plan Planned Community. Therefore, no new significant impact on scenic vistas or visual character are anticipated. Further evaluation of this issue in the Program EIR is not required, and no additional mitigation is necessary.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The County of Orange Transportation Element's Scenic Highways Plan has designated three roadways within the Ranch Plan Planned Community as Landscape Corridors:

- Ortega Highway (SR-74) from Cow Camp Road to I-5
- Antonio Parkway from Avenida Empresa to Ortega Highway
- Cow Camp Road from Ortega Highway (SR-74) to Antonio Parkway

According to the Scenic Highway Component (County of Orange 2005a, 2005b):

> A landscape corridor traverses developed or developing areas and has been designated by the Orange County General Plan for special treatment to provide a pleasant driving environment as well as community enhancement. Development within a Landscape Corridor should serve to complement the scenic highway and should, to the maximum extent possible, follow the adopted Landscape Typical Section as described in the Orange County General Plan Transportation Element Scenic Highways Plan. Any variation to the typical section should be addressed in the scenic corridor implementation plans.

RMV, through the development of Planning Area 1, has provided improvements to each of these scenic highways consistent with the County Scenic Highway requirements. However, pursuant to the Master Area Plan for Planning Area 1, the Class I bike trail and the riding and hiking trail designated along Ortega Highway are provided outside the roadway cross-section. These facilities will be located parallel to San Juan Creek and will be constructed in conjunction with the development of the planning areas.

Ortega Highway is also eligible to be included on the State Scenic Highway System, but has never been officially designated as a Scenic Highway (Caltrans 2011).

The improvements to each of the scenic highways have been or, in the case of Cow Camp Road, will be provided by RMV as part of the Ranch Plan Planned Community. The Project will not be responsible for these improvements and no further discussion of Scenic Highways is anticipated in the Draft Program EIR. However, should the traffic analysis identify the need for improvements to these scenic highways beyond what is being provided by the Ranch Plan Planned Community, consistency with the Scenic Highways Component of the County General Plan's Transportation Element will be addressed in the Program EIR.

d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Lighting associated with Project construction would be consistent with the lighting associated with surrounding development. Since the affordable housing sites would all be located within the Planning Areas of the Ranch Plan Planned

Community, it would not introduce a new light source into areas not exposed to lighting. Design guidelines within the *Ranch Plan Planned Community Program Text* provide for measures to minimize light spillage, which would be reviewed as part of site development plans. No further analysis of this issue will be included in the Program EIR and no additional mitigation is required.

2. AGRICULTURE AND FORESTRY RESOURCES

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

No Impact. Because the Project would be located on parcels that were already graded and would be located within the Ranch Plan Planned Community development areas, no new impacts to Important Farmland would result for the Project. Therefore, no further analysis of this issue will be included in the Program EIR and no additional mitigation is required.

No part of the Project site or adjacent areas is zoned forest land, timberland, or timberland zoned for Timberland Production, nor would the Project result in the loss of forest land or conversion to non-forest use. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

3. AIR QUALITY

a) Would the project conflict with or obstruct implementation of the applicable Air Quality Plan?

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State Ambient Air Quality Standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. The Project would generate additional localized air emissions from both construction activities and long-term operation of the Project. The Project's compliance with South Coast Air Quality Management District (SCAQMD) standards will be assessed. The Program EIR will include an air quality study to evaluate potential emissions. The Program EIR will also include an evaluation of the Project's consistency with adopted regional air quality plans and policies.

e) Would the project create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. The Project does not propose any land uses that are identified by the SCAQMD as odor sources of concern (e.g., wastewater treatment plants, agricultural operations, landfills, composting sites, food processing plants, chemical plants, or refineries) (SCAQMD 1993). Residential development is not associated with odor-generating activities. As such, the Project would not create an odor nuisance. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

4. <u>BIOLOGICAL RESOURCES</u>

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services?

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services?

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Would the project conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Affordable Housing Project would be constructed within the Ranch Plan Planned Community on parcels that have already been graded and which have had vegetation removed. The Affordable Housing parcels would be located within the Planning

Areas consistent with the assumptions of the Southern Subregion HCP. Mitigation for the impacts to biological resources is provided through the Ranch Plan Planned Community. Further evaluation of biological resources in the Program EIR is not required, and no additional mitigation is necessary.

5. CULTURAL/SCIENTIFIC RESOURCES

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

b) Would the project cause a substantial adverse changed in the significance of an archaeological resource pursuant to Section 15064.5?

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

No Impact. By the time the Project is implemented, all mass grading would have already occurred and the measures required by FEIR 589 to minimize impacts on cultural resources will have been implemented. Because of the absence of native ground disturbance associated with the Project, no direct or indirect impacts to historical, archaeological, or paleontological resources would occur, nor would the Project disturb any human remains. Further evaluation of this issue in the Program EIR is not required, and no additional mitigation is necessary.

6. GEOLOGY AND SOILS

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- **i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**
- **ii) Strong seismic ground shaking?**
- **iii) Seismic-related ground failure, including liquefaction?**
- **iv) Landslides?**

b) Would the project result in substantial soil erosion or the loss of topsoil?

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

d) Would the project be located on expansive soils, as defined in Table 18-1-B of the California Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. The Affordable Housing sites would be developed on graded sites and, before any construction occurs, RMV would have been required to satisfy the

applicable measures and regulatory requirements adopted in conjunction with the Ranch Plan Planned Community. As such, no significant impacts for geology and soils will result based on this Project. Any additional finish grading that may be required for the development of the Affordable Housing Project would be done in compliance with the Orange County Grading Code and the California Building Code. The Program EIR will not provide any further evaluation of geology and soils and no additional mitigation is necessary.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal system where sewers are not available for the disposal of wastewater?

No Impact. RMV will provide connections to utilities and serve infrastructure to the building pads. The Project will be served by an existing sewer system and does not propose the use septic tanks or alternative wastewater disposal systems. Therefore, no soils impacts related to septic tanks or alternative wastewater disposal systems would occur. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

7. GREENHOUSE GAS EMISSIONS

PROJECT IMPACT ANALYSIS

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. The Program EIR will include a greenhouse gas (GHG) emissions study to disclose the existing and future potential emissions from both construction activities and long-term use. The Program EIR will include an evaluation of the Project's consistency with applicable plans and policies for reducing GHG emissions.

8. HAZARDS AND HAZARDOUS MATERIALS

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. In conjunction with grading of the Ranch Plan Planned Community, RMV will implement the required measures associated with known hazardous materials risks on site. When the County receives the graded parcel, any potential impacts associated with known contaminants would have been reduced to less than significant and no further action would apply.

Hazardous materials are routinely used during construction; however, there are regulations in the Uniform Fire Code that would apply to the handling of these materials that would reduce potential hazards to less than significant levels. Further evaluation of hazardous materials in the Program EIR is not required, and no mitigation beyond compliance with existing regulations is necessary.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. In Orange County, there are 17 sites on the Hazardous Waste and Substance Site List (also known as the Cortese List) (DTSC 2014). The closest site is the former Marine Corps Air Station (MCAS) El Toro facility in Irvine which, at the closest point, is approximately eight miles north of the Ranch Plan Planned Community. Based on the distance from this site, the Project would not expose the public to hazardous materials associated with the sites on the Cortese List. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

e) Would the project be located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f) For a project within the vicinity of private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. John Wayne Airport is the closest commercial airport, which is located approximately 18 miles from the Project site. There are no private airstrips in the vicinity of the Project site. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. There are no designated evacuation routes within the Project site boundaries; therefore, the Project would not impair a designated evacuation route. Additionally, the Project would not impair the use of the arterial network that provides access to the Project site. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

h) Would the project expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact. As part of the Ranch Plan Planned Community project, a minimum 110-foot fuel modification zone is provided surrounding all development areas. Additional measures provided in the *Wildland Fire Management Plan* (contained in the FEIR 589 Adaptive Management Plan, which is Appendix J of FEIR 589) and *Ranch Plan Planned Community-Wide Fire Protection Plan* would provide the necessary emergency access and

fire safety issues for the development areas within the Ranch Plan Planned Community. RMV's implementation of these required measures will minimize the potential significant risk of loss, injury, or death involving wildland fires. Further evaluation of this issue in the Program EIR is not required, and no additional mitigation is necessary.

9. HYDROLOGY AND WATER QUALITY

a) Would the project violate any water quality standards or waste discharge requirements?

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

f) Would the project otherwise substantially degrade water quality?

Less Than Significant Impact. RMV will grade the Affordable Housing parcels, will implement the water quality treatment basins, and construct the backbone storm drainage system that would be constructed as part of the Planning Area improvements before the County receives the parcels. These improvements would implement the *Ranch Plan Planned Community Runoff Management Plan* (ROMP), which provides the comprehensive watershed planning guidance for the Ranch Plan Planned Community. However, although the parcels will be graded, they would be unfinished and site improvements would still be required. As part of construction activities, the County would be required to obtain a National Pollutant Discharge Elimination System (NPDES) General Construction permit and comply with the permit requirements effective at the time of construction. To address post-construction erosion and discharge impacts, the Affordable Housing parcels would be required to comply with the approved Water Quality Management Plan (WQMP) for the applicable Planning Area. The WQMP identifies measures to treat and/or limit the entry of contaminants into the storm drain system. These impacts would be less than significant with implementation of adopted regulatory standards; however, this issue will be discussed in the forthcoming Draft Program EIR.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

c) Would the project substantially alter the existing drainage pattern of the site or area including the alteration of the course of a stream or river, in manner which would result in substantial erosion or siltation on or off-site?

d) Would the project substantially alter drainage patterns of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less Than Significant Impact. Potable water service is provided to the Project site by the Santa Margarita Water District (SMWD). As discussed under Utilities and Service Systems (Section 17), there will be an analysis of water usage, and a Water Supply Assessment (WSA) for the Project will be prepared and discussed in the Draft Program EIR. The Project would not involve direct withdrawals of groundwater. Implementation of the Project would reduce the pervious areas available for potential natural recharge (due to the construction of buildings, parking areas, and other improvements); however, the total Project area is relatively small (approximately 30.0 to 52.5 acres, dependent upon the alternative selected) in relation to the total size of the groundwater subbasin. Additionally, it is assumed that the Project area will be developed as part of the Ranch Plan Planned Community. The Project site is not within a designated recharge area. As previously indicated, the watershed management measures adopted in conjunction with FEIR 589 ensure that the Ranch Plan Planned Community would not result in alteration of stream courses or substantially increase the rate of runoff. Since the affordable housing parcels will be located within the areas assumed for development, the impact would be less than significant and no additional mitigation is required. As individual parcels are developed, the site plans would be reviewed to ensure no site modifications have been made that would that would be inconsistent with the WQMP. No further analysis of this threshold will be provided in the forthcoming Draft Program EIR.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Would the project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j) Would the project be subject to inundation by seiche, tsunami, or mudflow?

No Impact. The Project site will be located within the development areas of the Ranch Plan Planned Community. The issues will be addressed and corrective measures taken as part of the grading permit processes for each Planning Area to address potential impacts associated with 100-year flood hazard; exposure to flooding as a result of failure of a levee or dam; and inundation by seiche, tsunami, or mudflow. Therefore, no housing or structures would be subjected to these hazards. Further evaluation of these issues in the Program EIR is not required, and no mitigation is necessary.

10. LAND USE AND PLANNING

a) Would the project physically divide an established community?

No Impact. The Affordable Housing Project would be integrated into the Ranch Plan Planned Community development areas. These sites are identified at the time the Subarea Plans are prepared. Therefore, they would be developed to be compatible with surrounding uses. As identified in FEIR 589, the Ranch Plan Planned Community would not have any physical impact on existing communities. Therefore, no impacts on existing development would

result from Project implementation. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Potentially Significant Impact. The Program EIR will evaluate the compatibility of each alternative with the applicable policies of the General Plan and regional planning documents, including the Regional Housing Needs Assessment.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. As indicated above in Checklist Response 4(f), the Project site is located within the Southern Subregion HCP; however, the affordable housing parcels will all be within Planning Areas that are not within a "Reserve" area. As such, the Project would not conflict with the applicable habitat conservation plan and no further evaluation of this issue is required in the Program EIR.

11. MINERAL RESOURCES

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Would the project result in the loss of availability of a locally important mineral resources recovery site delineated on a local general plan, specific plan, or other land use plan.

No Impact. There is an existing sand mining operation in Planning Area 5; however, the development pad for the Affordable Housing site in Planning Area 5 would be graded prior to the County receiving the parcel. The impacts on the mineral resources in Planning Area 5 were addressed as part of FEIR 589 and the Board of Supervisors made a Finding of Fact and adopted a Statement of Overriding Considerations at the time the Ranch Plan Planned Community was approved and FEIR 589 was certified. This Project would not have any new impacts on existing and potential mineral resources that were not previously addressed. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

12. NOISE

a) Would the project expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

c) Would the project cause substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. The Project scenarios would increase traffic levels resulting in a potential increase in cumulative noise levels in exceedance of established thresholds. A noise evaluation will analyze the potential changes in the noise environment and any possible conflicts with existing adjacent land uses. The Project's consistency with the General Plan and other applicable planning policies pertaining to noise will be evaluated.

b) Would the project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

d) Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The Project would involve construction activities that would result in short-term increases in ambient noise levels. Minimal grading activities would be required since the County would receive the Affordable Housing parcels as a graded pad. Therefore, excessive groundborne vibration or groundborne noise are not expected. The nature of the construction (i.e., residential development) would not require night construction or excessively noisy activities. Compliance with existing regulations (Noise Ordinance) would ensure these potential impacts are less than significant. Though not required, the Program EIR will provide a discussion of potential construction related impacts and identify the applicable standard conditions of approval.

e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the project area to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not located within an airport land use plan area or within two miles of a public airport. There are no private airstrips in the vicinity of the Project site. Further evaluation of this issue in the EIR is not required, and no mitigation is necessary.

13. POPULATION AND HOUSING

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The Project would result in the construction of additional housing within the Ranch Plan Planned Community limits. Though significant impacts growth inducing impacts are not anticipated, this issue will be addressed in the Program EIR.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Since there is no development on site, the Project would not result in the displacement of any housing or a substantial number of people. Construction of replacement housing would not be required. Further evaluation of this issue in the Program EIR is not required, and no mitigation is necessary.

14. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?

ii) Police protection?

iii) Schools?
iv) Parks?
v) Other Public Facilities?

Less Than Significant Impact. The Project would introduce new structures, increase the development intensity, and increase the number of people at the site, which could create additional demands for public services. Though the impacts are expected to be less than significant, the Program EIR will evaluate the Project's impacts on public services, including fire, police, schools, parks, libraries, and other public facilities. The impact analyses will be based on consultations with the local service providers. Potential service impacts associated with Project implementation can be related to provision of adequate service levels; environmental effects associated with the provision of additional services; and the need to upgrade and/or provide additional facilities to serve the Project.

15. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. The Project's housing units will be occupied by residents that would generate a demand for recreational facilities. The Draft Program EIR will assess whether construction and operation of the Project would adversely affect existing recreational facilities or require new or expanded facilities whose construction could result in environmental effects.

16. TRANSPORTATION/TRAFFIC

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Potentially Significant Impact. The Project would increase the number of vehicles going to and coming from the site and may result in traffic congestion and deterioration of level of service on the roadways and freeways surrounding the site. The Draft Program EIR will summarize the findings of a traffic impact assessment that evaluates the transportation impacts associated with implementing the Project in accordance with County and regional guidelines. Impacts on pedestrian and bicycle paths and mass transit services will also be addressed. Project consistency with the Orange County Congestion Management Program and other regional transportation programs will also be discussed.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact. The Project would not directly generate air traffic or create a demand for air transportation. There are no airports near the site, and the Project would not impact operations at John Wayne Airport, the nearest airport. No impact would occur, and no mitigation is necessary. Further evaluation of this issue in the Draft Program EIR is not required.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Would the project result in inadequate emergency access?

No Impact. Internal access roads would adhere to applicable established design guidelines; therefore, no design hazards are anticipated. At the time specific development projects are identified, design review would ensure adequate emergency access is provided.

Farming and ranching activities will be removed from the development area as a result of grading; therefore, conflicts associated with incompatible uses at the time the Project is constructed would be eliminated. No uses are proposed that would result in incompatibility with surrounding areas, thereby resulting in safety hazards.

Further evaluation of these issues in the Draft Program EIR is not required.

f) Would the project conflict with adopted policies, plan or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The Project would not conflict with adopted policies, plans, or programs pertaining to alternative modes of transportation. The Ranch Plan Planned Community incorporates regional and local pedestrian and bicycle trails (including the San Juan Creek Class I Regional Bikeway Trail), as well as riding and hiking trails (including the San Juan Creek Regional Riding and Hiking Trail). These facilities provide opportunities for alternative non-motorized transportation modes and would be the responsibility of RMV. Providing affordable housing would not conflict with the policies associated with alternative modes of transportation or result in any measures that would decrease performance or introduce safety hazards for these facilities. Though there are no planned transit stops at this time, as the Ranch Plan Planned Community builds out, the need for transit stops may be evaluated in the future. The Project does not preclude future transit use. Further evaluation of these issues in the Draft Program EIR is not required.

17. UTILITIES AND SERVICE SYSTEMS

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially Significant Impact. The Program EIR will evaluate the increased demand for water and wastewater treatment demands and the Affordable Housing Project's potential to generate discharges that could exceed the wastewater treatment requirements at SMWD facilities.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

No Impact. As discussed above in Section 9, Hydrology and Water Quality, the storm drainage system would be constructed as part of the Planning Area improvements. At the time the Project storm water collection facilities internal to the Affordable Housing parcels would be implemented that drain to the storm drain system. However, as part of the Ranch Plan Planned Community, the sizing of the storm drains and any associated infiltration basins or detention basins would account for the Affordable Housing development area.

Therefore, no new or expanded storm drain facilities would be required to serve the Project. No impacts would occur and this topic will not be addressed in the Program EIR.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. The Project would generate solid waste and a demand for solid waste disposal services. However, the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939) required all counties to prepare a County Integrated Waste Management Plan (CIWMP). In 2007, the County of Orange adopted the Strategic Plan Update to the Regional Landfill Options for Orange County (RELOOC), which provides a 40-year strategic plan for waste disposal for Orange County. OC Waste & Recycling uses long-range population projections when planning for the solid waste disposal needs in the County. The waste disposal service serving the Project site would be required to abide by the applicable waste reduction and recycling programs required under existing regulations (the California Mandatory Commercial Recycling Law [AB 341]). Based on the long-range capacity and compliance with existing regulations, impacts related to solid waste would be less than significant. Therefore, this topic will not be addressed in the Program EIR.

18. MANDATORY FINDINGS OF SIGNIFICANCE

PROJECT IMPACT ANALYSIS

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact. The Project would not have direct impacts on cultural or biological resources because the development sites will be graded prior to the County receiving the parcels. No new impacts beyond those identified in FEIR 589 would occur. The Project will not result in the degradation of the quality of the environment; in substantial reduction in the habitat of a fish or wildlife species; in a drop in fish or wildlife population to below self-sustaining levels; in threats to the elimination of a plant or animal community; in a reduction in the number or restriction in the range of a Rare or Endangered plant or animal; and/or in the elimination of important examples of the major periods of California history or prehistory.

b) Does the project have possible environmental effects, which are individually limited but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

c) Does project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. The Project has the potential to degrade the quality of the natural and human environment related to air quality, noise, traffic, and land use compatibility and could also cumulatively affect the human environment. Because of this potential for significant adverse effects, a Program EIR will be prepared for the Project.

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SCH#: 2015051062
Log #: 1210M
5/74/241/73

Ms. Rose Fistrovic
Orange County Public Works/Planning
300 N. Flower Street
Santa Ana, CA 92703

Ms. Fistrovic:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the proposed **Orange County Affordable Housing Implementation Program (IP #15-157) Notice of Preparation (NOP)**/SCH #2015051062. The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities of infill, conservation, and efficient development. To ensure a safe, efficient, and reliable transportation system, we encourage early consultation and coordination with local jurisdictions and project proponents on all development projects that utilize the multimodal transportation network.

The project NOP states, "As part of the overall approval process for the Ranch Plan Planned Community, an Affordable Housing Implementation Agreement (AHIA) was developed pursuant to the Ranch Plan Development Agreement (RPDA). The AHIA generally requires Rancho Mission Viejo (RMV) to provide the County with developable land at various sites within the Ranch Plan Planned Community ranging in size from 2 to 10 acres, for a total of 60 gross acres of property (Dedicated Land) for rental units for low and very-low income households and restricted to such use for a period of 55 years.... In December 2013, the County amended the AHIA to allow an option for private sector financing to provide the affordable units on the Ranch. This method would allow for RMV to enter into a long-term ground lease with an affordable housing builder.... As provided for in the AHIA, RMV will set aside land for the development of rental housing for low and very low income households in conjunction with the development of the Ranch Plan Planned Community. Development of this rental housing will be constructed at no less than 25 dwelling units per net acre." This proposed project is located in unincorporated southern Orange County in proximity to Interstate 5 (I-5), Ortega Highway/State Route 74 (SR-74), SR-241, and SR-73. **Caltrans District 12** is a **commenting agency**, and has the following comments:

For all potential impacts to the State Highway System from this project proposal:

- The geographic area examined in the traffic study should include as a minimum all regionally significant arterial system segments and intersections, including State highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.

- A traffic impact study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities including I-5, SR-74, SR-241, and SR-73 – existing and proposed – and to propose appropriate mitigation measures. The study should use as a guideline the *Caltrans Guide for the Preparation of Traffic Impact Studies*. Minimum contents of the traffic impact study are listed in Appendix "A" of the TIS guide. www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tis**guide**.pdf

- The project analysis should address biking and pedestrians, and study possible impacts on pedestrian and bicycle paths within Caltrans Right-of-Way (R/W).

- All intersection capacity analysis should be conducted by the Highway Capacity Manual (HCM) 2010 methodology.

- All State-owned signalized intersections affected by this project should be analyzed using the intersecting lane vehicle (ILV) procedure from the Caltrans Highway Design Manual, Topic 406, page 400-42. http://www.dot.ca.gov/hq/oppd/hdm/pdf/english/chp0400.pdf

- All freeway entrance and exit ramps where a proposed project will add a significant number of peak-hour trips that may cause any traffic queues to exceed storage capacities should be analyzed. If ramp metering is to occur, a ramp queue analysis for all nearby Caltrans metered on-ramps is required to identify the delay to motorists using the on-ramps and the storage necessary to accommodate the queuing. The effects of ramp metering should be analyzed in the traffic study. For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

- The data used in the TIS should not be more than 2 years old.

- Caltrans endeavors that any direct and cumulative impacts to the State Highway System be eliminated or reduced to a level of insignificance pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) standards.

- All Traffic signing and striping within Caltrans R/W shall be in conformance with Caltrans' standard, California MUTCD 2014 edition.
  http://www.dot.ca.gov/hq/traffops/engineering/mutcd/ca_mutcd2014.htm

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Leila Carver at (949) 756-7827.

Sincerely,

MAUREEN EL HARAKE
Branch Chief, Regional-Community-Transit Planning
District 12

c: Scott Morgan, Governor's OPR State Clearinghouse

June 18, 2015

Via E-mail to: *Rose.Fistrovic@ocpw.ocgov.com*

Rose Fistrovic
OC Public Works/OC Planning
300 North Flower Street
Santa Ana, CA 92703

Subject: Notice of Preparation of a Program Environmental Impact Report 623 for the Orange County Affordable Housing Implementation Program (IP# 15-157)

Dear Ms. Fistrovic:

The Transportation Corridor Agencies (TCA) has reviewed, and is pleased to submit these comments on the Notice of Preparation of a Program Environmental Impact Report 623 (PEIR) for the Orange County (County) Affordable Housing Implementation Program Project (Project). The Project will be located within the development boundaries of the Ranch Plan Planned Community located in unincorporated southern Orange County. The Ranch Plan Planned Community Program states that Affordable Housing sites will be identified as part of the Subarea Plans or subsequent Subarea Plan amendments. The affordable housing dwelling units are assumed to be over and above the 14,000 dwelling unit cap of the Ranch Plan Planned Community. The County, as the California Environmental Quality Act lead agency, has determined that a PEIR is the appropriate document for the Project.

The Project is within the Foothill/Eastern Transportation Corridor Agency fee program area and will require payment of Development Impact Fees as a condition of issuing building permits pursuant to the Major Thoroughfare and Bridge Fee Program adopted in 1988. As such, TCA requests to be kept on the County's distribution list and looks forward to receiving all future notices, the PEIR, along with any other forthcoming documentation for the Project.

TCA appreciates the opportunity to provide input to your planning process. If you have questions or require additional information, please do not hesitate to contact me at 949.754.3496 or via email (dferemenga@thetollroads.com).

Sincerely,

Doug Feremenga, PhD., AICP CEP, LEED AP
Principal Environmental Analyst

Appendix B

Air Quality Model Output

Alternative 3 - Maximum Buildout
Winter - Construction
Planning Area 3a

Year	ROG	NOX	CO	SO2	PM10 Tota	PM2.5 Total
			lb/day			
2018	5.3445	41.951	41.6821	0.0826	5.3673	3.1013
2019	24.1519	41.7794	45.6805	0.0949	5.8326	3.1871
2020	25.8063	59.7777	62.8892	0.1202	10.6796	5.5658

Alternative 3 - Maximum Buildout
Winter - Construction
Planning Area 3b

Year	ROG	NOX	CO	SO2	PM10 Tota	PM2.5 Total
			lb/day			
2021	3.8924	31.3035	37.8215	0.0828	4.4952	2.4527
2022	24.001	42.0821	57.091	0.1199	5.7562	2.9431
2023	24.1356	44.1047	58.3098	0.1202	9.5937	4.5445

Alternative 3 - Maximum Buildout
Winter - Construction
Planning Area 3c

Year	ROG	NOX	CO	SO2	PM10 Tota	PM2.5 Total
			lb/day			
2023	3.2901	25.8013	36.2436	0.0828	4.0902	2.2556
2024	23.324	36.1636	55.6008	0.1199	5.3063	2.5175
2025	23.3814	37.1417	55.7114	0.1202	9.0979	4.0776

Planning Area 4

Year	ROG	NOX	CO	SO2	PM10 Tota	PM2.5 Total
			lb/day			
2024	14.9157	29.6557	38.2491	0.0684	5.3158	3.0892
2025	14.7936	14.201	21.445	0.0445	1.7345	0.8655

Planning Areas 5

Year	ROG	NOX	CO	SO2	PM10 Tota	PM2.5 Total
			lb/day			
2027	1.5465	13.5175	19.0066	0.0395	3.6071	2.1315
2028	14.7727	20.4784	31.6246	0.0616	2.1521	1.1685

Planning Area 8

Year	ROG	NOX	CO	SO2	PM10 Tota	PM2.5 Total
			lb/day			
2029	1.5366	13.5148	18.8731	0.0395	3.6072	2.1316
2030	14.6636	14.6805	32.4401	0.0696	0.3357	0.749

P3, P4, P5 and P8 Combined

Year	ROG	NOX	CO	SO2	PM10 Tota	PM2.5 Total
			lb/day			
2018	5	42	42	0.0826	5	3
2019	24	42	46	0.0949	6	3
2020	26	60	63	0.1202	11	6
2021	4	31	38	0.0828	4	2
2022	24	42	57	0.1199	6	3
2023	27	70	95	0.2030	14	7
2024	38	66	94	0.1883	11	6
2025	38	51	77	0.1647	11	5
2026	0	0	0	0.0000	0	0
2027	2	14	19	0.0395	4	2
2028	15	20	32	0.0616	2	1
2029	2	14	19	0.0395	4	2
2030	15	15	32	0.0696	0	1
Thresholds	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Appendix C

Greenhouse Gas Model Output

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	3.54	Acre	3.54	154,202.40	0
Apartments Mid Rise	885.00	Dwelling Unit	31.86	885,000.00	2531

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	510	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 IF changed to reflect 2017 IF.

Land Use - Estimated acreage

Construction Phase - Per estimations 4/22/18 thru 8/4/18 (gr); 8/5/18 thru 12/31/20 (build); 8/52/19 thru 12/31/20 (coat); 4/22/20 thru 8/4/20 (2nd grad); 9/16/20 thru 12/31/20 (pav)

Off-road Equipment - Incr Arch Coat equipment for concurrent sites

Off-road Equipment - Increase bldg equipment for concurrent sites

Off-road Equipment - Fine grading, pool, utilities

Off-road Equipment - Sites are graded; fine grading and foundations

Off-road Equipment -

Trips and VMT - Bldg worker-vendor based on 250 du max at one time

Grading - total lot acreage

Architectural Coating - no non-residential

Vehicle Trips - based on Traffic Report ADT of 5,176.

Woodstoves - based on project description

Area Coating - no non-residential buildings

Energy Use - .

Water And Wastewater - based on WSA

Solid Waste - .

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	77,101.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	231,304.00	0.00
tblAreaCoating	Area_Nonresidential_Interior	231303	0
tblConstructionPhase	NumDays	55.00	369.00
tblConstructionPhase	NumDays	740.00	629.00
tblConstructionPhase	NumDays	55.00	77.00
tblConstructionPhase	PhaseEndDate	6/1/2022	12/31/2020
tblConstructionPhase	PhaseEndDate	8/3/2018	8/4/2018
tblConstructionPhase	PhaseEndDate	4/15/2021	8/4/2020
tblConstructionPhase	PhaseEndDate	11/19/2020	12/31/2020
tblConstructionPhase	PhaseStartDate	1/1/2021	8/5/2019
tblConstructionPhase	PhaseStartDate	1/1/2021	4/22/2020
tblConstructionPhase	PhaseStartDate	8/5/2020	9/16/2020
tblFireplaces	NumberGas	752.25	0.00
tblFireplaces	NumberNoFireplace	88.50	885.00
tblFireplaces	NumberWood	44.25	0.00
tblGrading	AcresOfGrading	37.50	35.40

tblGrading	AcresOfGrading	37.50	187.50
tblLandUse	LotAcreage	23.29	31.86
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	510
tblProjectCharacteristics	OperationalYear	2014	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	120.00	27.00
tblTripsAndVMT	WorkerTripNumber	702.00	180.00
tblTripsAndVMT	WorkerTripNumber	140.00	36.00
tblVehicleTrips	ST_TR	7.16	5.85
tblVehicleTrips	SU_TR	6.07	5.85
tblVehicleTrips	WD_TR	6.59	5.85
tblWater	IndoorWaterUseRate	57,661,312.67	56,899,687.00
tblWater	OutdoorWaterUseRate	36,351,697.12	10,065,145.00
tblWoodstoves	NumberCatalytic	44.25	0.00
tblWoodstoves	NumberNoncatalytic	44.25	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.3748	3.1971	2.9612	5.3500e-003	0.4013	0.1812	0.5825	0.1680	0.1699	0.3379			442.7622	0.0794	0.0000	444.4303
2019	1.6523	5.1645	5.5492	0.0115	0.4006	0.2915	0.6921	0.1069	0.2761	0.3830			915.4841	0.1335	0.0000	918.2885
2020	3.2299	6.3407	7.0977	0.0144	0.7826	0.3417	1.1242	0.2568	0.3226	0.5794			1,133.2840	0.1856	0.0000	1,137.1822
Total	**5.2570**	**14.7023**	**15.6081**	**0.0313**	**1.5844**	**0.8144**	**2.3988**	**0.5316**	**0.7686**	**1.3002**			**2,491.5304**	**0.3986**	**0.0000**	**2,499.9010**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.3748	3.1971	2.9612	5.3500e-003	0.2667	0.1812	0.4479	0.0986	0.1699	0.2685			442.7619	0.0794	0.0000	444.4300
2019	1.6523	5.1645	5.5492	0.0115	0.4006	0.2915	0.6921	0.1069	0.2761	0.3830			915.4835	0.1335	0.0000	918.2878
2020	3.2298	6.3407	7.0976	0.0144	0.6037	0.3417	0.9453	0.1826	0.3226	0.5052			1,133.2832	0.1856	0.0000	1,137.1813
Total	**5.2570**	**14.7023**	**15.6080**	**0.0313**	**1.2710**	**0.8144**	**2.0853**	**0.3880**	**0.7686**	**1.1567**			**2,491.5286**	**0.3986**	**0.0000**	**2,499.8991**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**19.78**	**0.00**	**13.07**	**27.01**	**0.00**	**11.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/22/2018	8/4/2018	5	75	
2	Building Construction	Building Construction	8/5/2018	12/31/2020	5	629	
3	Architectural Coating	Architectural Coating	8/5/2019	12/31/2020	5	369	
4	Grade 2nd site	Grading	4/22/2020	8/4/2020	5	75	
5	Paving	Paving	9/16/2020	12/31/2020	5	77	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 35.4

Acres of Paving: 0

Residential Indoor: 1,792,125; Residential Outdoor: 597,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	0.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Grade 2nd site	Excavators	1	8.00	162	0.38
Grade 2nd site	Graders	1	8.00	174	0.41
Grade 2nd site	Rubber Tired Dozers	1	8.00	255	0.40
Grade 2nd site	Scrapers	0	8.00	361	0.48
Grade 2nd site	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	14	180.00	27.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	36.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grade 2nd site	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2446	0.0000	0.2446	0.1262	0.0000	0.1262			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0927	0.9679	0.7247	8.8000e-004		0.0505	0.0505		0.0465	0.0465			80.5427	0.0251	0.0000	81.0692
Total	**0.0927**	**0.9679**	**0.7247**	**8.8000e-004**	**0.2446**	**0.0505**	**0.2951**	**0.1262**	**0.0465**	**0.1727**			**80.5427**	**0.0251**	**0.0000**	**81.0692**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	2.0700e-003	0.0214	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	3.0000e-005	1.5100e-003			4.5992	2.1000e-004	0.0000	4.6036
Total	**1.1600e-003**	**2.0700e-003**	**0.0214**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**3.0000e-005**	**1.5100e-003**			**4.5992**	**2.1000e-004**	**0.0000**	**4.6036**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1101	0.0000	0.1101	0.0568	0.0000	0.0568			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0927	0.9679	0.7247	8.8000e-004		0.0505	0.0505		0.0465	0.0465			80.5426	0.0251	0.0000	81.0691
Total	**0.0927**	**0.9679**	**0.7247**	**8.8000e-004**	**0.1101**	**0.0505**	**0.1606**	**0.0568**	**0.0465**	**0.1033**			**80.5426**	**0.0251**	**0.0000**	**81.0691**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	2.0700e-003	0.0214	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	3.0000e-005	1.5100e-003			4.5992	2.1000e-004	0.0000	4.6036
Total	**1.1600e-003**	**2.0700e-003**	**0.0214**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**3.0000e-005**	**1.5100e-003**			**4.5992**	**2.1000e-004**	**0.0000**	**4.6036**

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2393	2.0549	1.5133	2.3900e-003		0.1278	0.1278		0.1208	0.1208			209.8700	0.0486	0.0000	210.8911
Total	**0.2393**	**2.0549**	**1.5133**	**2.3900e-003**		**0.1278**	**0.1278**		**0.1208**	**0.1208**			**209.8700**	**0.0486**	**0.0000**	**210.8911**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0121	0.1197	0.1565	3.5000e-004	0.0101	1.8900e-003	0.0120	2.8800e-003	1.7300e-003	4.6100e-003			30.7470	2.2000e-004	0.0000	30.7515
Worker	0.0296	0.0526	0.5452	1.6700e-003	0.1410	9.4000e-004	0.1420	0.0375	8.7000e-004	0.0383			117.0034	5.3100e-003	0.0000	117.1150
Total	**0.0417**	**0.1723**	**0.7017**	**2.0200e-003**	**0.1511**	**2.8300e-003**	**0.1540**	**0.0403**	**2.6000e-003**	**0.0429**			**147.7504**	**5.5300e-003**	**0.0000**	**147.8665**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2393	2.0548	1.5133	2.3900e-003		0.1278	0.1278		0.1208	0.1208			209.8698	0.0486	0.0000	210.8908
Total	**0.2393**	**2.0548**	**1.5133**	**2.3900e-003**		**0.1278**	**0.1278**		**0.1208**	**0.1208**			**209.8698**	**0.0486**	**0.0000**	**210.8908**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0121	0.1197	0.1565	3.5000e-004	0.0101	1.8900e-003	0.0120	2.8800e-003	1.7300e-003	4.6100e-003			30.7470	2.2000e-004	0.0000	30.7515
Worker	0.0296	0.0526	0.5452	1.6700e-003	0.1410	9.4000e-004	0.1420	0.0375	8.7000e-004	0.0383			117.0034	5.3100e-003	0.0000	117.1150
Total	**0.0417**	**0.1723**	**0.7017**	**2.0200e-003**	**0.1511**	**2.8300e-003**	**0.1540**	**0.0403**	**2.6000e-003**	**0.0429**			**147.7504**	**5.5300e-003**	**0.0000**	**147.8665**

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5189	4.5653	3.6309	5.8900e-003		0.2709	0.2709		0.2560	0.2560			511.5155	0.1172	0.0000	513.9763
Total	**0.5189**	**4.5653**	**3.6309**	**5.8900e-003**		**0.2709**	**0.2709**		**0.2560**	**0.2560**			**511.5155**	**0.1172**	**0.0000**	**513.9763**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0278	0.2730	0.3674	8.6000e-004	0.0248	4.3300e-003	0.0292	7.0800e-003	3.9900e-003	0.0111			74.6573	5.4000e-004	0.0000	74.6686
Worker	0.0679	0.1201	1.2513	4.1200e-003	0.3473	2.3400e-003	0.3496	0.0922	2.1700e-003	0.0944			279.1069	0.0125	0.0000	279.3693
Total	**0.0958**	**0.3930**	**1.6187**	**4.9800e-003**	**0.3721**	**6.6700e-003**	**0.3788**	**0.0993**	**6.1600e-003**	**0.1055**			**353.7642**	**0.0130**	**0.0000**	**354.0378**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5189	4.5653	3.6309	5.8900e-003		0.2709	0.2709		0.2560	0.2560			511.5149	0.1172	0.0000	513.9757
Total	**0.5189**	**4.5653**	**3.6309**	**5.8900e-003**		**0.2709**	**0.2709**		**0.2560**	**0.2560**			**511.5149**	**0.1172**	**0.0000**	**513.9757**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0278	0.2730	0.3674	8.6000e-004	0.0248	4.3300e-003	0.0292	7.0800e-003	3.9900e-003	0.0111			74.6573	5.4000e-004	0.0000	74.6686
Worker	0.0679	0.1201	1.2513	4.1200e-003	0.3473	2.3400e-003	0.3496	0.0922	2.1700e-003	0.0944			279.1069	0.0125	0.0000	279.3693
Total	**0.0958**	**0.3930**	**1.6187**	**4.9800e-003**	**0.3721**	**6.6700e-003**	**0.3788**	**0.0993**	**6.1600e-003**	**0.1055**			**353.7642**	**0.0130**	**0.0000**	**354.0378**

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4674	4.1774	3.5720	5.9100e-003		0.2357	0.2357		0.2228	0.2228			506.5670	0.1156	0.0000	508.9950
Total	**0.4674**	**4.1774**	**3.5720**	**5.9100e-003**		**0.2357**	**0.2357**		**0.2228**	**0.2228**			**506.5670**	**0.1156**	**0.0000**	**508.9950**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0258	0.2386	0.3515	8.6000e-004	0.0249	3.9700e-003	0.0289	7.1100e-003	3.6600e-003	0.0108			73.2419	5.3000e-004	0.0000	73.2530
Worker	0.0644	0.1126	1.1788	4.1400e-003	0.3486	2.3600e-003	0.3510	0.0926	2.1900e-003	0.0948			268.9567	0.0120	0.0000	269.2077
Total	**0.0902**	**0.3512**	**1.5303**	**5.0000e-003**	**0.3735**	**6.3300e-003**	**0.3799**	**0.0997**	**5.8500e-003**	**0.1055**			**342.1986**	**0.0125**	**0.0000**	**342.4607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4674	4.1774	3.5720	5.9100e-003		0.2357	0.2357		0.2228	0.2228			506.5664	0.1156	0.0000	508.9943
Total	**0.4674**	**4.1774**	**3.5720**	**5.9100e-003**		**0.2357**	**0.2357**		**0.2228**	**0.2228**			**506.5664**	**0.1156**	**0.0000**	**508.9943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0258	0.2386	0.3515	8.6000e-004	0.0249	3.9700e-003	0.0289	7.1100e-003	3.6600e-003	0.0108			73.2419	5.3000e-004	0.0000	73.2530
Worker	0.0644	0.1126	1.1788	4.1400e-003	0.3486	2.3600e-003	0.3510	0.0926	2.1900e-003	0.0948			268.9567	0.0120	0.0000	269.2077
Total	**0.0902**	**0.3512**	**1.5303**	**5.0000e-003**	**0.3735**	**6.3300e-003**	**0.3799**	**0.0997**	**5.8500e-003**	**0.1055**			**342.1986**	**0.0125**	**0.0000**	**342.4607**

3.4 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0036					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0285	0.1964	0.1970	3.2000e-004		0.0138	0.0138		0.0138	0.0138			27.3198	2.3100e-003	0.0000	27.3683
Total	**1.0321**	**0.1964**	**0.1970**	**3.2000e-004**		**0.0138**	**0.0138**		**0.0138**	**0.0138**			**27.3198**	**2.3100e-003**	**0.0000**	**27.3683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.5700e-003	9.8400e-003	0.1026	3.4000e-004	0.0285	1.9000e-004	0.0287	7.5600e-003	1.8000e-004	7.7400e-003			22.8846	1.0200e-003	0.0000	22.9061
Total	**5.5700e-003**	**9.8400e-003**	**0.1026**	**3.4000e-004**	**0.0285**	**1.9000e-004**	**0.0287**	**7.5600e-003**	**1.8000e-004**	**7.7400e-003**			**22.8846**	**1.0200e-003**	**0.0000**	**22.9061**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0036					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0285	0.1964	0.1970	3.2000e-004		0.0138	0.0138		0.0138	0.0138			27.3198	2.3100e-003	0.0000	27.3682
Total	**1.0321**	**0.1964**	**0.1970**	**3.2000e-004**		**0.0138**	**0.0138**		**0.0138**	**0.0138**			**27.3198**	**2.3100e-003**	**0.0000**	**27.3682**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.5700e-003	9.8400e-003	0.1026	3.4000e-004	0.0285	1.9000e-004	0.0287	7.5600e-003	1.8000e-004	7.7400e-003			22.8846	1.0200e-003	0.0000	22.9061
Total	**5.5700e-003**	**9.8400e-003**	**0.1026**	**3.4000e-004**	**0.0285**	**1.9000e-004**	**0.0287**	**7.5600e-003**	**1.8000e-004**	**7.7400e-003**			**22.8846**	**1.0200e-003**	**0.0000**	**22.9061**

3.4 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4574					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0635	0.4412	0.4798	7.8000e-004		0.0291	0.0291		0.0291	0.0291			66.8953	5.1800e-003	0.0000	67.0040
Total	**2.5209**	**0.4412**	**0.4798**	**7.8000e-004**		**0.0291**	**0.0291**		**0.0291**	**0.0291**			**66.8953**	**5.1800e-003**	**0.0000**	**67.0040**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	0.0129	0.0225	0.2358	8.3000e-004	0.0697	4.7000e-004	0.0702	0.0185	4.4000e-004	0.0190			53.7913	2.3900e-003	0.0000	53.8415
Total	**0.0129**	**0.0225**	**0.2358**	**8.3000e-004**	**0.0697**	**4.7000e-004**	**0.0702**	**0.0185**	**4.4000e-004**	**0.0190**			**53.7913**	**2.3900e-003**	**0.0000**	**53.8415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4574					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0635	0.4412	0.4798	7.8000e-004		0.0291	0.0291		0.0291	0.0291			66.8952	5.1800e-003	0.0000	67.0039
Total	**2.5209**	**0.4412**	**0.4798**	**7.8000e-004**		**0.0291**	**0.0291**		**0.0291**	**0.0291**			**66.8952**	**5.1800e-003**	**0.0000**	**67.0039**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	0.0129	0.0225	0.2358	8.3000e-004	0.0697	4.7000e-004	0.0702	0.0185	4.4000e-004	0.0190			53.7913	2.3900e-003	0.0000	53.8415
Total	**0.0129**	**0.0225**	**0.2358**	**8.3000e-004**	**0.0697**	**4.7000e-004**	**0.0702**	**0.0185**	**4.4000e-004**	**0.0190**			**53.7913**	**2.3900e-003**	**0.0000**	**53.8415**

3.5 Grade 2nd site - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0801	0.8132	0.6796	8.8000e-004		0.0415	0.0415		0.0382	0.0382			77.4996	0.0251	0.0000	78.0260
Total	**0.0801**	**0.8132**	**0.6796**	**8.8000e-004**	**0.3253**	**0.0415**	**0.3668**	**0.1349**	**0.0382**	**0.1731**			**77.4996**	**0.0251**	**0.0000**	**78.0260**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	1.7900e-003	0.0188	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	3.0000e-005	1.5100e-003			4.2773	1.9000e-004	0.0000	4.2813
Total	**1.0200e-003**	**1.7900e-003**	**0.0188**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**3.0000e-005**	**1.5100e-003**			**4.2773**	**1.9000e-004**	**0.0000**	**4.2813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1464	0.0000	0.1464	0.0607	0.0000	0.0607			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0801	0.8132	0.6796	8.8000e-004		0.0415	0.0415		0.0382	0.0382			77.4995	0.0251	0.0000	78.0259
Total	**0.0801**	**0.8132**	**0.6796**	**8.8000e-004**	**0.1464**	**0.0415**	**0.1879**	**0.0607**	**0.0382**	**0.0989**			**77.4995**	**0.0251**	**0.0000**	**78.0259**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	1.7900e-003	0.0188	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	3.0000e-005	1.5100e-003			4.2773	1.9000e-004	0.0000	4.2813
Total	**1.0200e-003**	**1.7900e-003**	**0.0188**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**3.0000e-005**	**1.5100e-003**			**4.2773**	**1.9000e-004**	**0.0000**	**4.2813**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0512	0.5307	0.5526	8.6000e-004		0.0285	0.0285		0.0262	0.0262			75.4679	0.0244	0.0000	75.9805
Paving	4.6400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0559**	**0.5307**	**0.5526**	**8.6000e-004**		**0.0285**	**0.0285**		**0.0262**	**0.0262**			**75.4679**	**0.0244**	**0.0000**	**75.9805**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	2.7600e-003	0.0289	1.0000e-004	8.5400e-003	6.0000e-005	8.6000e-003	2.2700e-003	5.0000e-005	2.3200e-003			6.5870	2.9000e-004	0.0000	6.5932
Total	**1.5800e-003**	**2.7600e-003**	**0.0289**	**1.0000e-004**	**8.5400e-003**	**6.0000e-005**	**8.6000e-003**	**2.2700e-003**	**5.0000e-005**	**2.3200e-003**			**6.5870**	**2.9000e-004**	**0.0000**	**6.5932**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0512	0.5307	0.5526	8.6000e-004		0.0285	0.0285		0.0262	0.0262			75.4678	0.0244	0.0000	75.9804
Paving	4.6400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0559**	**0.5307**	**0.5526**	**8.6000e-004**		**0.0285**	**0.0285**		**0.0262**	**0.0262**			**75.4678**	**0.0244**	**0.0000**	**75.9804**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	2.7600e-003	0.0289	1.0000e-004	8.5400e-003	6.0000e-005	8.6000e-003	2.2700e-003	5.0000e-005	2.3200e-003			6.5870	2.9000e-004	0.0000	6.5932
Total	**1.5800e-003**	**2.7600e-003**	**0.0289**	**1.0000e-004**	**8.5400e-003**	**6.0000e-005**	**8.6000e-003**	**2.2700e-003**	**5.0000e-005**	**2.3200e-003**			**6.5870**	**2.9000e-004**	**0.0000**	**6.5932**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	3.54	Acre	3.54	154,202.40	0
Apartments Mid Rise	885.00	Dwelling Unit	31.86	885,000.00	2531

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	510	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.00617

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 IF changed to reflect 2017 IF.

Land Use - Estimated acreage

Construction Phase - Per estimations 1/1/21 thru 4/15/21 (grad); 4/16/21 thru 6/30/23 (build); 1/30/22 thru 6/30/23 (coat); 1/1/23 thru 4/15/23 (grad 2); 6/6/23 thru 9/30/23 (pave)

Off-road Equipment - Incr Arch Coat equipment for concurrent sites

Off-road Equipment - Increase bldg equipment for concurrent sites

Off-road Equipment - Fine grading, pool, utilities

Off-road Equipment - Sites are graded; fine grading and foundations

Off-road Equipment -

Trips and VMT - Bldg worker-vendor based on 250 du max at one time

Grading - total lot acreage

Architectural Coating - no non-residential

Vehicle Trips - based on Traffic Report ADT of 5,176.

Woodstoves - based on project description

Area Coating - no non-residential buildings

Energy Use - .

Water And Wastewater - based on WSA

Solid Waste - .

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	77,101.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	231,304.00	0.00
tblAreaCoating	Area_Nonresidential_Interior	231303	0
tblConstructionPhase	NumDays	55.00	370.00
tblConstructionPhase	NumDays	740.00	576.00
tblConstructionPhase	NumDays	55.00	77.00
tblConstructionPhase	PhaseEndDate	11/29/2024	6/30/2023
tblConstructionPhase	PhaseEndDate	1/3/2023	4/15/2023
tblConstructionPhase	PhaseEndDate	10/17/2023	9/20/2022
tblConstructionPhase	PhaseStartDate	7/1/2023	1/30/2022
tblConstructionPhase	PhaseStartDate	9/21/2022	1/1/2023
tblConstructionPhase	PhaseStartDate	7/1/2023	6/6/2022
tblFireplaces	NumberGas	752.25	0.00
tblFireplaces	NumberNoFireplace	88.50	885.00
tblFireplaces	NumberWood	44.25	0.00
tblGrading	AcresOfGrading	37.50	35.40
tblGrading	AcresOfGrading	37.50	187.50
tblLandUse	LotAcreage	23.29	31.86

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	510
tblProjectCharacteristics	OperationalYear	2014	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	120.00	27.00
tblTripsAndVMT	WorkerTripNumber	702.00	180.00
tblTripsAndVMT	WorkerTripNumber	140.00	36.00
tblVehicleTrips	ST_TR	7.16	5.85
tblVehicleTrips	SU_TR	6.07	5.85
tblVehicleTrips	WD_TR	6.59	5.85
tblWater	IndoorWaterUseRate	57,661,312.67	56,899,687.00
tblWater	OutdoorWaterUseRate	36,351,697.12	10,065,145.00
tblWoodstoves	NumberCatalytic	44.25	0.00
tblWoodstoves	NumberNoncatalytic	44.25	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4325	3.6427	4.1934	8.7000e-003	0.5153	0.1847	0.7001	0.1984	0.1736	0.3720			681.0902	0.1147	0.0000	683.4985
2022	2.8092	4.4437	6.0178	0.0133	0.4431	0.2183	0.6614	0.1181	0.2068	0.3250			1,024.4882	0.1543	0.0000	1,027.7286
2023	1.5205	2.4420	3.3308	7.1600e-003	0.5507	0.1152	0.6660	0.1950	0.1087	0.3037			555.0380	0.0894	0.0000	556.9150
Total	**4.7623**	**10.5284**	**13.5420**	**0.0291**	**1.5091**	**0.5183**	**2.0274**	**0.5115**	**0.4891**	**1.0006**			**2,260.6164**	**0.3584**	**0.0000**	**2,268.1421**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4325	3.6427	4.1934	8.7000e-003	0.3808	0.1847	0.5655	0.1290	0.1736	0.3026			681.0897	0.1147	0.0000	683.4980
2022	2.8092	4.4437	6.0178	0.0133	0.4431	0.2183	0.6614	0.1181	0.2068	0.3250			1,024.4874	0.1543	0.0000	1,027.7279
2023	1.5205	2.4420	3.3308	7.1600e-003	0.3718	0.1152	0.4871	0.1208	0.1087	0.2295			555.0375	0.0894	0.0000	556.9145
Total	**4.7623**	**10.5283**	**13.5420**	**0.0291**	**1.1957**	**0.5183**	**1.7140**	**0.3680**	**0.4891**	**0.8570**			**2,260.6147**	**0.3584**	**0.0000**	**2,268.1404**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**20.77**	**0.00**	**15.46**	**28.06**	**0.00**	**14.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2021	4/15/2021	5	75	
2	Building Construction	Building Construction	4/16/2021	6/30/2023	5	576	
3	Architectural Coating	Architectural Coating	1/30/2022	6/30/2023	5	370	
4	Paving	Paving	6/6/2022	9/20/2022	5	77	
5	Grade 2nd site	Grading	1/1/2023	4/15/2023	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 35.4

Acres of Paving: 0

Residential Indoor: 1,792,125; Residential Outdoor: 597,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	0.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Grade 2nd site	Excavators	1	8.00	162	0.38
Grade 2nd site	Graders	1	8.00	174	0.41
Grade 2nd site	Rubber Tired Dozers	1	8.00	255	0.40
Grade 2nd site	Scrapers	0	8.00	361	0.48
Grade 2nd site	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	14	180.00	27.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	36.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grade 2nd site	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2446	0.0000	0.2446	0.1262	0.0000	0.1262			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0729	0.7250	0.6511	8.8000e-004		0.0366	0.0366		0.0337	0.0337			77.4804	0.0251	0.0000	78.0067
Total	**0.0729**	**0.7250**	**0.6511**	**8.8000e-004**	**0.2446**	**0.0366**	**0.2812**	**0.1262**	**0.0337**	**0.1598**			**77.4804**	**0.0251**	**0.0000**	**78.0067**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	1.6800e-003	0.0177	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			4.2069	1.8000e-004	0.0000	4.2107
Total	**9.7000e-004**	**1.6800e-003**	**0.0177**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**4.2069**	**1.8000e-004**	**0.0000**	**4.2107**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1101	0.0000	0.1101	0.0568	0.0000	0.0568			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0729	0.7250	0.6511	8.8000e-004		0.0366	0.0366		0.0337	0.0337			77.4803	0.0251	0.0000	78.0066
Total	**0.0729**	**0.7250**	**0.6511**	**8.8000e-004**	**0.1101**	**0.0366**	**0.1467**	**0.0568**	**0.0337**	**0.0904**			**77.4803**	**0.0251**	**0.0000**	**78.0066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	1.6800e-003	0.0177	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			4.2069	1.8000e-004	0.0000	4.2107
Total	**9.7000e-004**	**1.6800e-003**	**0.0177**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**4.2069**	**1.8000e-004**	**0.0000**	**4.2107**

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2976	2.6974	2.4909	4.2000e-003		0.1439	0.1439		0.1359	0.1359			359.6554	0.0809	0.0000	361.3547
Total	**0.2976**	**2.6974**	**2.4909**	**4.2000e-003**		**0.1439**	**0.1439**		**0.1359**	**0.1359**			**359.6554**	**0.0809**	**0.0000**	**361.3547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0177	0.1434	0.2433	6.1000e-004	0.0177	2.5600e-003	0.0203	5.0500e-003	2.3600e-003	7.4100e-003			51.9524	3.8000e-004	0.0000	51.9603
Worker	0.0434	0.0751	0.7903	2.9400e-003	0.2475	1.6900e-003	0.2492	0.0657	1.5700e-003	0.0673			187.7951	8.1400e-003	0.0000	187.9662
Total	**0.0611**	**0.2186**	**1.0336**	**3.5500e-003**	**0.2652**	**4.2500e-003**	**0.2694**	**0.0708**	**3.9300e-003**	**0.0747**			**239.7475**	**8.5200e-003**	**0.0000**	**239.9265**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2976	2.6974	2.4909	4.2000e-003		0.1439	0.1439		0.1359	0.1359			359.6549	0.0809	0.0000	361.3543
Total	**0.2976**	**2.6974**	**2.4909**	**4.2000e-003**		**0.1439**	**0.1439**		**0.1359**	**0.1359**			**359.6549**	**0.0809**	**0.0000**	**361.3543**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0177	0.1434	0.2433	6.1000e-004	0.0177	2.5600e-003	0.0203	5.0500e-003	2.3600e-003	7.4100e-003			51.9524	3.8000e-004	0.0000	51.9603
Worker	0.0434	0.0751	0.7903	2.9400e-003	0.2475	1.6900e-003	0.2492	0.0657	1.5700e-003	0.0673			187.7951	8.1400e-003	0.0000	187.9662
Total	**0.0611**	**0.2186**	**1.0336**	**3.5500e-003**	**0.2652**	**4.2500e-003**	**0.2694**	**0.0708**	**3.9300e-003**	**0.0747**			**239.7475**	**8.5200e-003**	**0.0000**	**239.9265**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3748	3.3840	3.4361	5.8700e-003		0.1708	0.1708		0.1615	0.1615			502.9024	0.1121	0.0000	505.2572
Total	**0.3748**	**3.3840**	**3.4361**	**5.8700e-003**		**0.1708**	**0.1708**		**0.1615**	**0.1615**			**502.9024**	**0.1121**	**0.0000**	**505.2572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0242	0.1818	0.3322	8.5000e-004	0.0247	3.5500e-003	0.0283	7.0600e-003	3.2600e-003	0.0103			72.5605	5.4000e-004	0.0000	72.5718
Worker	0.0577	0.0991	1.0456	4.1100e-003	0.3459	2.3800e-003	0.3483	0.0919	2.2000e-003	0.0941			258.2346	0.0110	0.0000	258.4645
Total	**0.0820**	**0.2809**	**1.3778**	**4.9600e-003**	**0.3707**	**5.9300e-003**	**0.3766**	**0.0989**	**5.4600e-003**	**0.1044**			**330.7950**	**0.0115**	**0.0000**	**331.0363**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3748	3.3840	3.4361	5.8700e-003		0.1708	0.1708		0.1615	0.1615			502.9018	0.1121	0.0000	505.2566
Total	**0.3748**	**3.3840**	**3.4361**	**5.8700e-003**		**0.1708**	**0.1708**		**0.1615**	**0.1615**			**502.9018**	**0.1121**	**0.0000**	**505.2566**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0242	0.1818	0.3322	8.5000e-004	0.0247	3.5500e-003	0.0283	7.0600e-003	3.2600e-003	0.0103			72.5605	5.4000e-004	0.0000	72.5718
Worker	0.0577	0.0991	1.0456	4.1100e-003	0.3459	2.3800e-003	0.3483	0.0919	2.2000e-003	0.0941			258.2346	0.0110	0.0000	258.4645
Total	**0.0820**	**0.2809**	**1.3778**	**4.9600e-003**	**0.3707**	**5.9300e-003**	**0.3766**	**0.0989**	**5.4600e-003**	**0.1044**			**330.7950**	**0.0115**	**0.0000**	**331.0363**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1731	1.5612	1.7046	2.9400e-003		0.0742	0.0742		0.0702	0.0702			251.5198	0.0556	0.0000	252.6868
Total	**0.1731**	**1.5612**	**1.7046**	**2.9400e-003**		**0.0742**	**0.0742**		**0.0702**	**0.0702**			**251.5198**	**0.0556**	**0.0000**	**252.6868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.0716	0.1593	4.2000e-004	0.0124	1.7500e-003	0.0141	3.5300e-003	1.6100e-003	5.1400e-003			36.1052	2.4000e-004	0.0000	36.1103
Worker	0.0275	0.0470	0.4960	2.0500e-003	0.1730	1.2000e-003	0.1742	0.0459	1.1100e-003	0.0470			127.1811	5.2800e-003	0.0000	127.2921
Total	**0.0387**	**0.1186**	**0.6553**	**2.4700e-003**	**0.1853**	**2.9500e-003**	**0.1883**	**0.0495**	**2.7200e-003**	**0.0522**			**163.2863**	**5.5200e-003**	**0.0000**	**163.4024**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1731	1.5612	1.7046	2.9400e-003		0.0742	0.0742		0.0702	0.0702			251.5195	0.0556	0.0000	252.6864
Total	**0.1731**	**1.5612**	**1.7046**	**2.9400e-003**		**0.0742**	**0.0742**		**0.0702**	**0.0702**			**251.5195**	**0.0556**	**0.0000**	**252.6864**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.0716	0.1593	4.2000e-004	0.0124	1.7500e-003	0.0141	3.5300e-003	1.6100e-003	5.1400e-003			36.1052	2.4000e-004	0.0000	36.1103
Worker	0.0275	0.0470	0.4960	2.0500e-003	0.1730	1.2000e-003	0.1742	0.0459	1.1100e-003	0.0470			127.1811	5.2800e-003	0.0000	127.2921
Total	**0.0387**	**0.1186**	**0.6553**	**2.4700e-003**	**0.1853**	**2.9500e-003**	**0.1883**	**0.0495**	**2.7200e-003**	**0.0522**			**163.2863**	**5.5200e-003**	**0.0000**	**163.4024**

3.4 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2450					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0491	0.3380	0.4353	7.1000e-004		0.0196	0.0196		0.0196	0.0196			61.2781	3.9900e-003	0.0000	61.3619
Total	**2.2941**	**0.3380**	**0.4353**	**7.1000e-004**		**0.0196**	**0.0196**		**0.0196**	**0.0196**			**61.2781**	**3.9900e-003**	**0.0000**	**61.3619**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	0.0107	0.0183	0.1930	7.6000e-004	0.0639	4.4000e-004	0.0643	0.0170	4.1000e-004	0.0174			47.6741	2.0200e-003	0.0000	47.7165
Total	**0.0107**	**0.0183**	**0.1930**	**7.6000e-004**	**0.0639**	**4.4000e-004**	**0.0643**	**0.0170**	**4.1000e-004**	**0.0174**			**47.6741**	**2.0200e-003**	**0.0000**	**47.7165**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2450					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0491	0.3380	0.4353	7.1000e-004		0.0196	0.0196		0.0196	0.0196			61.2780	3.9900e-003	0.0000	61.3618
Total	**2.2941**	**0.3380**	**0.4353**	**7.1000e-004**		**0.0196**	**0.0196**		**0.0196**	**0.0196**			**61.2780**	**3.9900e-003**	**0.0000**	**61.3618**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	0.0107	0.0183	0.1930	7.6000e-004	0.0639	4.4000e-004	0.0643	0.0170	4.1000e-004	0.0174			47.6741	2.0200e-003	0.0000	47.7165
Total	**0.0107**	**0.0183**	**0.1930**	**7.6000e-004**	**0.0639**	**4.4000e-004**	**0.0643**	**0.0170**	**4.1000e-004**	**0.0174**			**47.6741**	**2.0200e-003**	**0.0000**	**47.7165**

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2160					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003			33.1923	1.9900e-003	0.0000	33.2340
Total	**1.2410**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**			**33.1923**	**1.9900e-003**	**0.0000**	**33.2340**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-003	9.3900e-003	0.0992	4.1000e-004	0.0346	2.4000e-004	0.0348	9.1900e-003	2.2000e-004	9.4100e-003			25.4362	1.0600e-003	0.0000	25.4584
Total	**5.5000e-003**	**9.3900e-003**	**0.0992**	**4.1000e-004**	**0.0346**	**2.4000e-004**	**0.0348**	**9.1900e-003**	**2.2000e-004**	**9.4100e-003**			**25.4362**	**1.0600e-003**	**0.0000**	**25.4584**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2160					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003			33.1923	1.9900e-003	0.0000	33.2340
Total	**1.2410**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**			**33.1923**	**1.9900e-003**	**0.0000**	**33.2340**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-003	9.3900e-003	0.0992	4.1000e-004	0.0346	2.4000e-004	0.0348	9.1900e-003	2.2000e-004	9.4100e-003			25.4362	1.0600e-003	0.0000	25.4584
Total	**5.5000e-003**	**9.3900e-003**	**0.0992**	**4.1000e-004**	**0.0346**	**2.4000e-004**	**0.0348**	**9.1900e-003**	**2.2000e-004**	**9.4100e-003**			**25.4362**	**1.0600e-003**	**0.0000**	**25.4584**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0416	0.4201	0.5498	8.6000e-004		0.0215	0.0215		0.0198	0.0198			75.4655	0.0244	0.0000	75.9780
Paving	4.6400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0463**	**0.4201**	**0.5498**	**8.6000e-004**		**0.0215**	**0.0215**		**0.0198**	**0.0198**			**75.4655**	**0.0244**	**0.0000**	**75.9780**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	2.4500e-003	0.0258	1.0000e-004	8.5400e-003	6.0000e-005	8.6000e-003	2.2700e-003	5.0000e-005	2.3200e-003			6.3731	2.7000e-004	0.0000	6.3788
Total	**1.4200e-003**	**2.4500e-003**	**0.0258**	**1.0000e-004**	**8.5400e-003**	**6.0000e-005**	**8.6000e-003**	**2.2700e-003**	**5.0000e-005**	**2.3200e-003**			**6.3731**	**2.7000e-004**	**0.0000**	**6.3788**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0416	0.4201	0.5498	8.6000e-004		0.0215	0.0215		0.0198	0.0198			75.4654	0.0244	0.0000	75.9779
Paving	4.6400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0463**	**0.4201**	**0.5498**	**8.6000e-004**		**0.0215**	**0.0215**		**0.0198**	**0.0198**			**75.4654**	**0.0244**	**0.0000**	**75.9779**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	2.4500e-003	0.0258	1.0000e-004	8.5400e-003	6.0000e-005	8.6000e-003	2.2700e-003	5.0000e-005	2.3200e-003			6.3731	2.7000e-004	0.0000	6.3788
Total	**1.4200e-003**	**2.4500e-003**	**0.0258**	**1.0000e-004**	**8.5400e-003**	**6.0000e-005**	**8.6000e-003**	**2.2700e-003**	**5.0000e-005**	**2.3200e-003**			**6.3731**	**2.7000e-004**	**0.0000**	**6.3788**

3.6 Grade 2nd site - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0615	0.5819	0.6204	8.8000e-004		0.0286	0.0286		0.0263	0.0263			77.5270	0.0251	0.0000	78.0536
Total	**0.0615**	**0.5819**	**0.6204**	**8.8000e-004**	**0.3253**	**0.0286**	**0.3538**	**0.1349**	**0.0263**	**0.1612**			**77.5270**	**0.0251**	**0.0000**	**78.0536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.5000e-003	0.0159	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			4.0763	1.7000e-004	0.0000	4.0799
Total	**8.8000e-004**	**1.5000e-003**	**0.0159**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**4.0763**	**1.7000e-004**	**0.0000**	**4.0799**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1464	0.0000	0.1464	0.0607	0.0000	0.0607			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0615	0.5819	0.6204	8.8000e-004		0.0286	0.0286		0.0263	0.0263			77.5270	0.0251	0.0000	78.0535
Total	**0.0615**	**0.5819**	**0.6204**	**8.8000e-004**	**0.1464**	**0.0286**	**0.1749**	**0.0607**	**0.0263**	**0.0870**			**77.5270**	**0.0251**	**0.0000**	**78.0535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.5000e-003	0.0159	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			4.0763	1.7000e-004	0.0000	4.0799
Total	**8.8000e-004**	**1.5000e-003**	**0.0159**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**4.0763**	**1.7000e-004**	**0.0000**	**4.0799**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	3.54	Acre	3.54	154,202.40	0
Apartments Mid Rise	885.00	Dwelling Unit	31.86	885,000.00	2531

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	510	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.00617

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 IF changed to reflect 2017 IF.

Land Use - Estimated acreage

Construction Phase - Per estimations 7/1/23 thru 10/15/23; 10/16/23 thru 12/30/25; 7/30/24 thru 12/30/25; 12/6/24 thru 3/24/25; 7/1/25 thru 10/13/25

Off-road Equipment - Incr Arch Coat equipment for concurrent sites

Off-road Equipment - Increase bldg equipment for concurrent sites

Off-road Equipment - Fine grading, pool, utilities

Off-road Equipment - Sites are graded; fine grading and foundations

Off-road Equipment -

Trips and VMT - Bldg worker-vendor based on 250 du max at one time

Grading - total lot acreage

Architectural Coating - no non-residential

Vehicle Trips - based on Traffic Report ADT of 5,176.

Woodstoves - based on project description

Area Coating - no non-residential buildings

Energy Use - .

Water And Wastewater - based on WSA

Solid Waste - .

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	77,101.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	231,304.00	0.00
tblAreaCoating	Area_Nonresidential_Interior	231303	0
tblConstructionPhase	NumDays	55.00	371.00
tblConstructionPhase	NumDays	740.00	577.00
tblConstructionPhase	NumDays	55.00	77.00
tblConstructionPhase	PhaseEndDate	6/2/2027	12/30/2025
tblConstructionPhase	PhaseEndDate	10/13/2023	10/15/2023
tblConstructionPhase	PhaseEndDate	7/7/2025	10/13/2025
tblConstructionPhase	PhaseEndDate	4/16/2026	3/24/2025
tblConstructionPhase	PhaseStartDate	12/31/2025	7/30/2024
tblConstructionPhase	PhaseStartDate	3/25/2025	7/1/2025
tblConstructionPhase	PhaseStartDate	12/31/2025	12/6/2024
tblFireplaces	NumberGas	752.25	0.00
tblFireplaces	NumberNoFireplace	88.50	885.00
tblFireplaces	NumberWood	44.25	0.00
tblGrading	AcresOfGrading	37.50	35.40
tblGrading	AcresOfGrading	37.50	187.50

tblLandUse	LotAcreage	23.29	31.86
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	510
tblProjectCharacteristics	OperationalYear	2014	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	120.00	27.00
tblTripsAndVMT	WorkerTripNumber	702.00	180.00
tblTripsAndVMT	WorkerTripNumber	140.00	36.00
tblVehicleTrips	ST_TR	7.16	5.85
tblVehicleTrips	SU_TR	6.07	5.85
tblVehicleTrips	WD_TR	6.59	5.85
tblWater	IndoorWaterUseRate	57,661,312.67	56,899,687.00
tblWater	OutdoorWaterUseRate	36,351,697.12	10,065,145.00
tblWoodstoves	NumberCatalytic	44.25	0.00
tblWoodstoves	NumberNoncatalytic	44.25	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1519	1.2941	1.6347	3.2400e-003	0.3286	0.0613	0.3898	0.1486	0.0572	0.2057			257.0982	0.0511	0.0000	258.1712
2024	1.4712	3.4019	5.0942	0.0118	0.4051	0.1485	0.5536	0.1081	0.1405	0.2486			901.3192	0.1302	0.0000	904.0525
2025	2.9364	3.9579	6.2524	0.0141	0.7772	0.1666	0.9438	0.2554	0.1572	0.4126			1,083.1024	0.1696	0.0000	1,086.6643
Total	**4.5595**	**8.6539**	**12.9813**	**0.0292**	**1.5108**	**0.3764**	**1.8872**	**0.5120**	**0.3549**	**0.8668**			**2,241.5198**	**0.3509**	**0.0000**	**2,248.8880**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1519	1.2941	1.6347	3.2400e-003	0.1940	0.0613	0.2553	0.0792	0.0572	0.1363			257.0980	0.0511	0.0000	258.1709
2024	1.4712	3.4019	5.0942	0.0118	0.4051	0.1485	0.5536	0.1081	0.1405	0.2486			901.3185	0.1302	0.0000	904.0518
2025	2.9364	3.9579	6.2524	0.0141	0.5983	0.1666	0.7649	0.1812	0.1572	0.3384			1,083.1016	0.1696	0.0000	1,086.6635
Total	**4.5595**	**8.6539**	**12.9813**	**0.0292**	**1.1974**	**0.3764**	**1.5737**	**0.3684**	**0.3549**	**0.7233**			**2,241.5181**	**0.3509**	**0.0000**	**2,248.8863**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**20.74**	**0.00**	**16.61**	**28.04**	**0.00**	**16.56**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2023	10/15/2023	5	75	
2	Building Construction	Building Construction	10/16/2023	12/30/2025	5	577	
3	Architectural Coating	Architectural Coating	7/30/2024	12/30/2025	5	371	
4	Paving	Paving	12/6/2024	3/24/2025	5	77	
5	Grade 2nd site	Grading	7/1/2025	10/13/2025	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 35.4

Acres of Paving: 0

Residential Indoor: 1,792,125; Residential Outdoor: 597,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	0.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Grade 2nd site	Excavators	1	8.00	162	0.38
Grade 2nd site	Graders	1	8.00	174	0.41
Grade 2nd site	Rubber Tired Dozers	1	8.00	255	0.40
Grade 2nd site	Scrapers	0	8.00	361	0.48
Grade 2nd site	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	14	180.00	27.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	36.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grade 2nd site	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2446	0.0000	0.2446	0.1262	0.0000	0.1262			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0615	0.5819	0.6204	8.8000e-004		0.0286	0.0286		0.0263	0.0263			77.5270	0.0251	0.0000	78.0536
Total	**0.0615**	**0.5819**	**0.6204**	**8.8000e-004**	**0.2446**	**0.0286**	**0.2732**	**0.1262**	**0.0263**	**0.1524**			**77.5270**	**0.0251**	**0.0000**	**78.0536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.5000e-003	0.0159	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			4.0763	1.7000e-004	0.0000	4.0799
Total	**8.8000e-004**	**1.5000e-003**	**0.0159**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**4.0763**	**1.7000e-004**	**0.0000**	**4.0799**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1101	0.0000	0.1101	0.0568	0.0000	0.0568			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0615	0.5819	0.6204	8.8000e-004		0.0286	0.0286		0.0263	0.0263			77.5270	0.0251	0.0000	78.0535
Total	**0.0615**	**0.5819**	**0.6204**	**8.8000e-004**	**0.1101**	**0.0286**	**0.1386**	**0.0568**	**0.0263**	**0.0831**			**77.5270**	**0.0251**	**0.0000**	**78.0535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.5000e-003	0.0159	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			4.0763	1.7000e-004	0.0000	4.0799
Total	**8.8000e-004**	**1.5000e-003**	**0.0159**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**4.0763**	**1.7000e-004**	**0.0000**	**4.0799**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0732	0.6605	0.7212	1.2400e-003		0.0314	0.0314		0.0297	0.0297			106.4122	0.0235	0.0000	106.9059
Total	**0.0732**	**0.6605**	**0.7212**	**1.2400e-003**		**0.0314**	**0.0314**		**0.0297**	**0.0297**			**106.4122**	**0.0235**	**0.0000**	**106.9059**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	4.7300e-003	0.0303	0.0674	1.8000e-004	5.2300e-003	7.4000e-004	5.9700e-003	1.4900e-003	6.8000e-004	2.1700e-003			15.2753	1.0000e-004	0.0000	15.2774
Worker	0.0116	0.0199	0.2099	8.7000e-004	0.0732	5.1000e-004	0.0737	0.0194	4.7000e-004	0.0199			53.8074	2.2400e-003	0.0000	53.8543
Total	**0.0164**	**0.0502**	**0.2773**	**1.0500e-003**	**0.0784**	**1.2500e-003**	**0.0797**	**0.0209**	**1.1500e-003**	**0.0221**			**69.0827**	**2.3400e-003**	**0.0000**	**69.1318**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0732	0.6605	0.7212	1.2400e-003		0.0314	0.0314		0.0297	0.0297			106.4121	0.0235	0.0000	106.9058
Total	**0.0732**	**0.6605**	**0.7212**	**1.2400e-003**		**0.0314**	**0.0314**		**0.0297**	**0.0297**			**106.4121**	**0.0235**	**0.0000**	**106.9058**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	4.7300e-003	0.0303	0.0674	1.8000e-004	5.2300e-003	7.4000e-004	5.9700e-003	1.4900e-003	6.8000e-004	2.1700e-003			15.2753	1.0000e-004	0.0000	15.2774
Worker	0.0116	0.0199	0.2099	8.7000e-004	0.0732	5.1000e-004	0.0737	0.0194	4.7000e-004	0.0199			53.8074	2.2400e-003	0.0000	53.8543
Total	**0.0164**	**0.0502**	**0.2773**	**1.0500e-003**	**0.0784**	**1.2500e-003**	**0.0797**	**0.0209**	**1.1500e-003**	**0.0221**			**69.0827**	**2.3400e-003**	**0.0000**	**69.1318**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3262	2.9414	3.4159	5.9200e-003		0.1314	0.1314		0.1242	0.1242			506.9858	0.1112	0.0000	509.3200
Total	**0.3262**	**2.9414**	**3.4159**	**5.9200e-003**		**0.1314**	**0.1314**		**0.1242**	**0.1242**			**506.9858**	**0.1112**	**0.0000**	**509.3200**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0221	0.1431	0.3158	8.6000e-004	0.0249	3.6100e-003	0.0285	7.1200e-003	3.3200e-003	0.0104			72.7508	4.9000e-004	0.0000	72.7610
Worker	0.0528	0.0899	0.9471	4.1400e-003	0.3486	2.4300e-003	0.3510	0.0926	2.2500e-003	0.0948			252.7388	0.0103	0.0000	252.9548
Total	**0.0749**	**0.2330**	**1.2628**	**5.0000e-003**	**0.3735**	**6.0400e-003**	**0.3796**	**0.0997**	**5.5700e-003**	**0.1052**			**325.4896**	**0.0108**	**0.0000**	**325.7159**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3262	2.9414	3.4159	5.9200e-003		0.1314	0.1314		0.1242	0.1242			506.9852	0.1112	0.0000	509.3194
Total	**0.3262**	**2.9414**	**3.4159**	**5.9200e-003**		**0.1314**	**0.1314**		**0.1242**	**0.1242**			**506.9852**	**0.1112**	**0.0000**	**509.3194**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0221	0.1431	0.3158	8.6000e-004	0.0249	3.6100e-003	0.0285	7.1200e-003	3.3200e-003	0.0104			72.7508	4.9000e-004	0.0000	72.7610
Worker	0.0528	0.0899	0.9471	4.1400e-003	0.3486	2.4300e-003	0.3510	0.0926	2.2500e-003	0.0948			252.7388	0.0103	0.0000	252.9548
Total	**0.0749**	**0.2330**	**1.2628**	**5.0000e-003**	**0.3735**	**6.0400e-003**	**0.3796**	**0.0997**	**5.5700e-003**	**0.1052**			**325.4896**	**0.0108**	**0.0000**	**325.7159**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3013	2.7100	3.3714	5.8700e-003		0.1128	0.1128		0.1066	0.1066			503.2388	0.1095	0.0000	505.5379
Total	**0.3013**	**2.7100**	**3.3714**	**5.8700e-003**		**0.1128**	**0.1128**		**0.1066**	**0.1066**			**503.2388**	**0.1095**	**0.0000**	**505.5379**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0214	0.1410	0.3060	8.5000e-004	0.0247	3.6000e-003	0.0283	7.0600e-003	3.3100e-003	0.0104			72.2019	4.9000e-004	0.0000	72.2121
Worker	0.0502	0.0854	0.9017	4.1100e-003	0.3459	2.4300e-003	0.3484	0.0919	2.2500e-003	0.0941			247.7428	9.9200e-003	0.0000	247.9512
Total	**0.0716**	**0.2264**	**1.2077**	**4.9600e-003**	**0.3707**	**6.0300e-003**	**0.3767**	**0.0989**	**5.5600e-003**	**0.1045**			**319.9446**	**0.0104**	**0.0000**	**320.1632**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3013	2.7100	3.3714	5.8700e-003		0.1128	0.1128		0.1066	0.1066			503.2382	0.1095	0.0000	505.5373
Total	**0.3013**	**2.7100**	**3.3714**	**5.8700e-003**		**0.1128**	**0.1128**		**0.1066**	**0.1066**			**503.2382**	**0.1095**	**0.0000**	**505.5373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0214	0.1410	0.3060	8.5000e-004	0.0247	3.6000e-003	0.0283	7.0600e-003	3.3100e-003	0.0104			72.2019	4.9000e-004	0.0000	72.2121
Worker	0.0502	0.0854	0.9017	4.1100e-003	0.3459	2.4300e-003	0.3484	0.0919	2.2500e-003	0.0941			247.7428	9.9200e-003	0.0000	247.9512
Total	**0.0716**	**0.2264**	**1.2077**	**4.9600e-003**	**0.3707**	**6.0300e-003**	**0.3767**	**0.0989**	**5.5600e-003**	**0.1045**			**319.9446**	**0.0104**	**0.0000**	**320.1632**

3.4 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0355					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0201	0.1353	0.2009	3.3000e-004		6.7600e-003	6.7600e-003		6.7600e-003	6.7600e-003			28.3411	1.6000e-003	0.0000	28.3746
Total	**1.0556**	**0.1353**	**0.2009**	**3.3000e-004**		**6.7600e-003**	**6.7600e-003**		**6.7600e-003**	**6.7600e-003**			**28.3411**	**1.6000e-003**	**0.0000**	**28.3746**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.4700e-003	7.6100e-003	0.0803	3.5000e-004	0.0295	2.1000e-004	0.0297	7.8400e-003	1.9000e-004	8.0300e-003			21.4153	8.7000e-004	0.0000	21.4336
Total	**4.4700e-003**	**7.6100e-003**	**0.0803**	**3.5000e-004**	**0.0295**	**2.1000e-004**	**0.0297**	**7.8400e-003**	**1.9000e-004**	**8.0300e-003**			**21.4153**	**8.7000e-004**	**0.0000**	**21.4336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0355					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0201	0.1353	0.2009	3.3000e-004		6.7600e-003	6.7600e-003		6.7600e-003	6.7600e-003			28.3411	1.6000e-003	0.0000	28.3746
Total	**1.0556**	**0.1353**	**0.2009**	**3.3000e-004**		**6.7600e-003**	**6.7600e-003**		**6.7600e-003**	**6.7600e-003**			**28.3411**	**1.6000e-003**	**0.0000**	**28.3746**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.4700e-003	7.6100e-003	0.0803	3.5000e-004	0.0295	2.1000e-004	0.0297	7.8400e-003	1.9000e-004	8.0300e-003			21.4153	8.7000e-004	0.0000	21.4336
Total	**4.4700e-003**	**7.6100e-003**	**0.0803**	**3.5000e-004**	**0.0295**	**2.1000e-004**	**0.0297**	**7.8400e-003**	**1.9000e-004**	**8.0300e-003**			**21.4153**	**8.7000e-004**	**0.0000**	**21.4336**

3.4 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4255					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0444	0.2978	0.4704	7.7000e-004		0.0134	0.0134		0.0134	0.0134			66.3846	3.6200e-003	0.0000	66.4606
Total	**2.4700**	**0.2978**	**0.4704**	**7.7000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**			**66.3846**	**3.6200e-003**	**0.0000**	**66.4606**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	0.0100	0.0171	0.1804	8.2000e-004	0.0692	4.9000e-004	0.0697	0.0184	4.5000e-004	0.0188			49.5486	1.9800e-003	0.0000	49.5902
Total	**0.0100**	**0.0171**	**0.1804**	**8.2000e-004**	**0.0692**	**4.9000e-004**	**0.0697**	**0.0184**	**4.5000e-004**	**0.0188**			**49.5486**	**1.9800e-003**	**0.0000**	**49.5902**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4255					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0444	0.2978	0.4704	7.7000e-004		0.0134	0.0134		0.0134	0.0134			66.3845	3.6200e-003	0.0000	66.4606
Total	**2.4700**	**0.2978**	**0.4704**	**7.7000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**			**66.3845**	**3.6200e-003**	**0.0000**	**66.4606**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	0.0100	0.0171	0.1804	8.2000e-004	0.0692	4.9000e-004	0.0697	0.0184	4.5000e-004	0.0188			49.5486	1.9800e-003	0.0000	49.5902
Total	**0.0100**	**0.0171**	**0.1804**	**8.2000e-004**	**0.0692**	**4.9000e-004**	**0.0697**	**0.0184**	**4.5000e-004**	**0.0188**			**49.5486**	**1.9800e-003**	**0.0000**	**49.5902**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7200e-003	0.0841	0.1289	2.0000e-004		4.1400e-003	4.1400e-003		3.8100e-003	3.8100e-003			17.6404	5.7100e-003	0.0000	17.7602
Paving	1.0800e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**9.8000e-003**	**0.0841**	**0.1289**	**2.0000e-004**		**4.1400e-003**	**4.1400e-003**		**3.8100e-003**	**3.8100e-003**			**17.6404**	**5.7100e-003**	**0.0000**	**17.7602**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	5.1000e-004	5.4200e-003	2.0000e-005	2.0000e-003	1.0000e-005	2.0100e-003	5.3000e-004	1.0000e-005	5.4000e-004			1.4470	6.0000e-005	0.0000	1.4482
Total	**3.0000e-004**	**5.1000e-004**	**5.4200e-003**	**2.0000e-005**	**2.0000e-003**	**1.0000e-005**	**2.0100e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**			**1.4470**	**6.0000e-005**	**0.0000**	**1.4482**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7200e-003	0.0841	0.1289	2.0000e-004		4.1400e-003	4.1400e-003		3.8100e-003	3.8100e-003			17.6404	5.7100e-003	0.0000	17.7602
Paving	1.0800e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**9.8000e-003**	**0.0841**	**0.1289**	**2.0000e-004**		**4.1400e-003**	**4.1400e-003**		**3.8100e-003**	**3.8100e-003**			**17.6404**	**5.7100e-003**	**0.0000**	**17.7602**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	5.1000e-004	5.4200e-003	2.0000e-005	2.0000e-003	1.0000e-005	2.0100e-003	5.3000e-004	1.0000e-005	5.4000e-004			1.4470	6.0000e-005	0.0000	1.4482
Total	**3.0000e-004**	**5.1000e-004**	**5.4200e-003**	**2.0000e-005**	**2.0000e-003**	**1.0000e-005**	**2.0100e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**			**1.4470**	**6.0000e-005**	**0.0000**	**1.4482**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2484	0.4212	6.6000e-004		0.0121	0.0121		0.0112	0.0112			57.8004	0.0187	0.0000	58.1929
Paving	3.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0300**	**0.2484**	**0.4212**	**6.6000e-004**		**0.0121**	**0.0121**		**0.0112**	**0.0112**			**57.8004**	**0.0187**	**0.0000**	**58.1929**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	9.5000e-004	1.6100e-003	0.0171	8.0000e-005	6.5400e-003	5.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003			4.6849	1.9000e-004	0.0000	4.6888
Total	**9.5000e-004**	**1.6100e-003**	**0.0171**	**8.0000e-005**	**6.5400e-003**	**5.0000e-005**	**6.5900e-003**	**1.7400e-003**	**4.0000e-005**	**1.7800e-003**			**4.6849**	**1.9000e-004**	**0.0000**	**4.6888**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2484	0.4212	6.6000e-004		0.0121	0.0121		0.0112	0.0112			57.8003	0.0187	0.0000	58.1929
Paving	3.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0300**	**0.2484**	**0.4212**	**6.6000e-004**		**0.0121**	**0.0121**		**0.0112**	**0.0112**			**57.8003**	**0.0187**	**0.0000**	**58.1929**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	9.5000e-004	1.6100e-003	0.0171	8.0000e-005	6.5400e-003	5.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003			4.6849	1.9000e-004	0.0000	4.6888
Total	**9.5000e-004**	**1.6100e-003**	**0.0171**	**8.0000e-005**	**6.5400e-003**	**5.0000e-005**	**6.5900e-003**	**1.7400e-003**	**4.0000e-005**	**1.7800e-003**			**4.6849**	**1.9000e-004**	**0.0000**	**4.6888**

3.6 Grade 2nd site - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0516	0.4552	0.5698	8.8000e-004		0.0217	0.0217		0.0199	0.0199			77.5304	0.0251	0.0000	78.0569
Total	**0.0516**	**0.4552**	**0.5698**	**8.8000e-004**	**0.3253**	**0.0217**	**0.3469**	**0.1349**	**0.0199**	**0.1548**			**77.5304**	**0.0251**	**0.0000**	**78.0569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	1.3700e-003	0.0145	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			3.9702	1.6000e-004	0.0000	3.9736
Total	**8.0000e-004**	**1.3700e-003**	**0.0145**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**3.9702**	**1.6000e-004**	**0.0000**	**3.9736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1464	0.0000	0.1464	0.0607	0.0000	0.0607			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0516	0.4552	0.5698	8.8000e-004		0.0217	0.0217		0.0199	0.0199			77.5303	0.0251	0.0000	78.0569
Total	**0.0516**	**0.4552**	**0.5698**	**8.8000e-004**	**0.1464**	**0.0217**	**0.1680**	**0.0607**	**0.0199**	**0.0806**			**77.5303**	**0.0251**	**0.0000**	**78.0569**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	1.3700e-003	0.0145	7.0000e-005	5.5400e-003	4.0000e-005	5.5800e-003	1.4700e-003	4.0000e-005	1.5100e-003			3.9702	1.6000e-004	0.0000	3.9736
Total	**8.0000e-004**	**1.3700e-003**	**0.0145**	**7.0000e-005**	**5.5400e-003**	**4.0000e-005**	**5.5800e-003**	**1.4700e-003**	**4.0000e-005**	**1.5100e-003**			**3.9702**	**1.6000e-004**	**0.0000**	**3.9736**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.30	Acre	0.30	13,068.00	0
Apartments Mid Rise	75.00	Dwelling Unit	2.70	75,000.00	215

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	510	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on 2017 IF

Land Use - estimated acreage

Construction Phase - grading: 2/2/24 thru 3/2/24; const.: 2/10/24 thru 2/11/25; paving: 8/15/24 thru 8/28/24; arch: 12/10/24 thru 2/10/25

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - estimated number

Off-road Equipment -

Architectural Coating - no non-residential structures

Vehicle Trips - based on traffic report

Woodstoves - based on project description

Area Coating - no non-residential buildings

Energy Use - .

Water And Wastewater - based on WSA

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	6,534.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	19,602.00	0.00
tblAreaCoating	Area_Nonresidential_Interior	19602	0
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	220.00	262.00
tblConstructionPhase	NumDays	6.00	21.00
tblConstructionPhase	PhaseEndDate	10/30/2024	2/10/2025
tblConstructionPhase	PhaseEndDate	3/4/2025	2/11/2025
tblConstructionPhase	PhaseEndDate	3/1/2024	3/2/2024
tblConstructionPhase	PhaseEndDate	2/25/2025	8/28/2024
tblConstructionPhase	PhaseStartDate	8/29/2024	12/10/2024
tblConstructionPhase	PhaseStartDate	3/3/2024	2/10/2024
tblConstructionPhase	PhaseStartDate	2/12/2025	8/15/2024
tblFireplaces	NumberGas	63.75	0.00
tblFireplaces	NumberNoFireplace	7.50	75.00
tblFireplaces	NumberWood	3.75	0.00
tblGrading	AcresOfGrading	10.50	3.00
tblLandUse	LotAcreage	1.97	2.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	510
tblProjectCharacteristics	OperationalYear	2014	2025
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

tblVehicleTrips	ST_TR	7.16	5.82
tblVehicleTrips	SU_TR	6.07	5.82
tblVehicleTrips	WD_TR	6.59	5.82
tblWater	IndoorWaterUseRate	4,886,551.92	1,238,235.45
tblWater	OutdoorWaterUseRate	3,080,652.30	847,213.73
tblWoodstoves	NumberCatalytic	3.75	0.00
tblWoodstoves	NumberNoncatalytic	3.75	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.3214	1.8406	2.5307	5.0500e-003	0.1791	0.0831	0.2622	0.0654	0.0780	0.1434			403.3082	0.0771	0.0000	404.9279
2025	0.2151	0.2126	0.3209	6.7000e-004	0.0167	8.8900e-003	0.0256	4.4600e-003	8.4000e-003	0.0129			52.6436	8.8000e-003	0.0000	52.8285
Total	**0.5365**	**2.0533**	**2.8516**	**5.7200e-003**	**0.1958**	**0.0920**	**0.2878**	**0.0699**	**0.0864**	**0.1563**			**455.9518**	**0.0859**	**0.0000**	**457.7564**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.3214	1.8406	2.5307	5.0500e-003	0.1434	0.0831	0.2266	0.0462	0.0780	0.1242			403.3078	0.0771	0.0000	404.9275
2025	0.2151	0.2126	0.3209	6.7000e-004	0.0167	8.8900e-003	0.0256	4.4600e-003	8.4000e-003	0.0129			52.6436	8.8000e-003	0.0000	52.8284
Total	**0.5365**	**2.0533**	**2.8516**	**5.7200e-003**	**0.1602**	**0.0920**	**0.2522**	**0.0507**	**0.0864**	**0.1371**			**455.9514**	**0.0859**	**0.0000**	**457.7560**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**18.21**	**0.00**	**12.39**	**27.49**	**0.00**	**12.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/2/2024	3/2/2024	5	21	
2	Building Construction	Building Construction	2/10/2024	2/11/2025	5	262	
3	Paving	Paving	8/15/2024	8/28/2024	5	10	
4	Architectural Coating	Architectural Coating	12/10/2024	2/10/2025	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 151,875; Residential Outdoor: 50,625; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	59.00	10.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0648	0.0000	0.0648	0.0349	0.0000	0.0349			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0176	0.1640	0.1928	2.8000e-004		7.9200e-003	7.9200e-003		7.2900e-003	7.2900e-003			24.5845	7.9500e-003	0.0000	24.7515
Total	**0.0176**	**0.1640**	**0.1928**	**2.8000e-004**	**0.0648**	**7.9200e-003**	**0.0727**	**0.0349**	**7.2900e-003**	**0.0422**			**24.5845**	**7.9500e-003**	**0.0000**	**24.7515**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	5.2000e-004	5.4800e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004			1.4631	6.0000e-005	0.0000	1.4643
Total	**3.1000e-004**	**5.2000e-004**	**5.4800e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**			**1.4631**	**6.0000e-005**	**0.0000**	**1.4643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0292	0.0000	0.0292	0.0157	0.0000	0.0157			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0176	0.1640	0.1928	2.8000e-004		7.9200e-003	7.9200e-003		7.2900e-003	7.2900e-003			24.5845	7.9500e-003	0.0000	24.7515
Total	**0.0176**	**0.1640**	**0.1928**	**2.8000e-004**	**0.0292**	**7.9200e-003**	**0.0371**	**0.0157**	**7.2900e-003**	**0.0230**			**24.5845**	**7.9500e-003**	**0.0000**	**24.7515**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	5.2000e-004	5.4800e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004			1.4631	6.0000e-005	0.0000	1.4643
Total	**3.1000e-004**	**5.2000e-004**	**5.4800e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**			**1.4631**	**6.0000e-005**	**0.0000**	**1.4643**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1700	1.5518	1.8715	3.1100e-003		0.0708	0.0708		0.0666	0.0666			267.8312	0.0632	0.0000	269.1592
Total	**0.1700**	**1.5518**	**1.8715**	**3.1100e-003**		**0.0708**	**0.0708**		**0.0666**	**0.0666**			**267.8312**	**0.0632**	**0.0000**	**269.1592**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.2500e-003	0.0469	0.1036	2.8000e-004	8.1800e-003	1.1800e-003	9.3600e-003	2.3300e-003	1.0900e-003	3.4200e-003			23.8595	1.6000e-004	0.0000	23.8628
Worker	0.0153	0.0261	0.2749	1.2000e-003	0.1012	7.0000e-004	0.1019	0.0269	6.5000e-004	0.0275			73.3564	2.9900e-003	0.0000	73.4191
Total	**0.0226**	**0.0730**	**0.3784**	**1.4800e-003**	**0.1094**	**1.8800e-003**	**0.1112**	**0.0292**	**1.7400e-003**	**0.0309**			**97.2159**	**3.1500e-003**	**0.0000**	**97.2820**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1700	1.5518	1.8715	3.1100e-003		0.0708	0.0708		0.0666	0.0666			267.8309	0.0632	0.0000	269.1589
Total	**0.1700**	**1.5518**	**1.8715**	**3.1100e-003**		**0.0708**	**0.0708**		**0.0666**	**0.0666**			**267.8309**	**0.0632**	**0.0000**	**269.1589**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.2500e-003	0.0469	0.1036	2.8000e-004	8.1800e-003	1.1800e-003	9.3600e-003	2.3300e-003	1.0900e-003	3.4200e-003			23.8595	1.6000e-004	0.0000	23.8628
Worker	0.0153	0.0261	0.2749	1.2000e-003	0.1012	7.0000e-004	0.1019	0.0269	6.5000e-004	0.0275			73.3564	2.9900e-003	0.0000	73.4191
Total	**0.0226**	**0.0730**	**0.3784**	**1.4800e-003**	**0.1094**	**1.8800e-003**	**0.1112**	**0.0292**	**1.7400e-003**	**0.0309**			**97.2159**	**3.1500e-003**	**0.0000**	**97.2820**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0204	0.1862	0.2408	4.0000e-004		7.8800e-003	7.8800e-003		7.4100e-003	7.4100e-003			34.6439	8.1300e-003	0.0000	34.8147
Total	**0.0204**	**0.1862**	**0.2408**	**4.0000e-004**		**7.8800e-003**	**7.8800e-003**		**7.4100e-003**	**7.4100e-003**			**34.6439**	**8.1300e-003**	**0.0000**	**34.8147**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	9.1000e-004	6.0300e-003	0.0131	4.0000e-005	1.0600e-003	1.5000e-004	1.2100e-003	3.0000e-004	1.4000e-004	4.4000e-004			3.0856	2.0000e-005	0.0000	3.0860
Worker	1.9000e-003	3.2300e-003	0.0341	1.6000e-004	0.0131	9.0000e-005	0.0132	3.4700e-003	9.0000e-005	3.5600e-003			9.3698	3.8000e-004	0.0000	9.3776
Total	**2.8100e-003**	**9.2600e-003**	**0.0472**	**2.0000e-004**	**0.0141**	**2.4000e-004**	**0.0144**	**3.7700e-003**	**2.3000e-004**	**4.0000e-003**			**12.4553**	**4.0000e-004**	**0.0000**	**12.4636**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0204	0.1862	0.2408	4.0000e-004		7.8800e-003	7.8800e-003		7.4100e-003	7.4100e-003			34.6439	8.1300e-003	0.0000	34.8146
Total	**0.0204**	**0.1862**	**0.2408**	**4.0000e-004**		**7.8800e-003**	**7.8800e-003**		**7.4100e-003**	**7.4100e-003**			**34.6439**	**8.1300e-003**	**0.0000**	**34.8146**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	9.1000e-004	6.0300e-003	0.0131	4.0000e-005	1.0600e-003	1.5000e-004	1.2100e-003	3.0000e-004	1.4000e-004	4.4000e-004			3.0856	2.0000e-005	0.0000	3.0860
Worker	1.9000e-003	3.2300e-003	0.0341	1.6000e-004	0.0131	9.0000e-005	0.0132	3.4700e-003	9.0000e-005	3.5600e-003			9.3698	3.8000e-004	0.0000	9.3776
Total	**2.8100e-003**	**9.2600e-003**	**0.0472**	**2.0000e-004**	**0.0141**	**2.4000e-004**	**0.0144**	**3.7700e-003**	**2.3000e-004**	**4.0000e-003**			**12.4553**	**4.0000e-004**	**0.0000**	**12.4636**

3.4 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3500e-003	0.0409	0.0603	9.0000e-005		1.9700e-003	1.9700e-003		1.8200e-003	1.8200e-003			8.0701	2.5300e-003	0.0000	8.1233
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**4.7400e-003**	**0.0409**	**0.0603**	**9.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.8200e-003**	**1.8200e-003**			**8.0701**	**2.5300e-003**	**0.0000**	**8.1233**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.8000e-004	4.0200e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.0718	4.0000e-005	0.0000	1.0728
Total	**2.2000e-004**	**3.8000e-004**	**4.0200e-003**	**2.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.0718**	**4.0000e-005**	**0.0000**	**1.0728**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3500e-003	0.0409	0.0603	9.0000e-005		1.9700e-003	1.9700e-003		1.8200e-003	1.8200e-003			8.0701	2.5300e-003	0.0000	8.1233
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**4.7400e-003**	**0.0409**	**0.0603**	**9.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.8200e-003**	**1.8200e-003**			**8.0701**	**2.5300e-003**	**0.0000**	**8.1233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.8000e-004	4.0200e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.0718	4.0000e-005	0.0000	1.0728
Total	**2.2000e-004**	**3.8000e-004**	**4.0200e-003**	**2.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.0718**	**4.0000e-005**	**0.0000**	**1.0728**

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1043					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	9.7500e-003	0.0145	2.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004			2.0426	1.2000e-004	0.0000	2.0450
Total	**0.1057**	**9.7500e-003**	**0.0145**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**			**2.0426**	**1.2000e-004**	**0.0000**	**2.0450**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	3.7000e-004	3.8600e-003	2.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0290	4.0000e-005	0.0000	1.0298
Total	**2.1000e-004**	**3.7000e-004**	**3.8600e-003**	**2.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**			**1.0290**	**4.0000e-005**	**0.0000**	**1.0298**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1043					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	9.7500e-003	0.0145	2.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004			2.0426	1.2000e-004	0.0000	2.0450
Total	**0.1057**	**9.7500e-003**	**0.0145**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**			**2.0426**	**1.2000e-004**	**0.0000**	**2.0450**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	3.7000e-004	3.8600e-003	2.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0290	4.0000e-005	0.0000	1.0298
Total	**2.1000e-004**	**3.7000e-004**	**3.8600e-003**	**2.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**			**1.0290**	**4.0000e-005**	**0.0000**	**1.0298**

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1890					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0166	0.0262	4.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004			3.7022	2.0000e-004	0.0000	3.7065
Total	**0.1915**	**0.0166**	**0.0262**	**4.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**			**3.7022**	**2.0000e-004**	**0.0000**	**3.7065**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	6.3000e-004	6.7100e-003	3.0000e-005	2.5700e-003	2.0000e-005	2.5900e-003	6.8000e-004	2.0000e-005	7.0000e-004			1.8422	7.0000e-005	0.0000	1.8437
Total	**3.7000e-004**	**6.3000e-004**	**6.7100e-003**	**3.0000e-005**	**2.5700e-003**	**2.0000e-005**	**2.5900e-003**	**6.8000e-004**	**2.0000e-005**	**7.0000e-004**			**1.8422**	**7.0000e-005**	**0.0000**	**1.8437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1890					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0166	0.0262	4.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004			3.7022	2.0000e-004	0.0000	3.7065
Total	**0.1915**	**0.0166**	**0.0262**	**4.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**			**3.7022**	**2.0000e-004**	**0.0000**	**3.7065**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	6.3000e-004	6.7100e-003	3.0000e-005	2.5700e-003	2.0000e-005	2.5900e-003	6.8000e-004	2.0000e-005	7.0000e-004			1.8422	7.0000e-005	0.0000	1.8437
Total	**3.7000e-004**	**6.3000e-004**	**6.7100e-003**	**3.0000e-005**	**2.5700e-003**	**2.0000e-005**	**2.5900e-003**	**6.8000e-004**	**2.0000e-005**	**7.0000e-004**			**1.8422**	**7.0000e-005**	**0.0000**	**1.8437**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.30	Acre	0.30	13,068.00	0
Apartments Mid Rise	75.00	Dwelling Unit	2.70	75,000.00	215

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	510	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on 2017 IF

Land Use - estimated acreage

Construction Phase - grading: 12/1/27 thru 12/29/27; const.: 12/30/27 thru 12/31/28; paving: 5/30/28 thru 6/12/28; arch: 10/30/28 thru 12/31/28

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - estimated number

Off-road Equipment -

Architectural Coating - no non-residential structures

Vehicle Trips - based on traffic report

Woodstoves - based on project description

Area Coating - no non-residential buildings

Energy Use - .

Water And Wastewater - based on WSA

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	6,534.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	19,602.00	0.00
tblAreaCoating	Area_Nonresidential_Interior	19602	0
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	220.00	262.00
tblConstructionPhase	NumDays	6.00	21.00
tblConstructionPhase	PhaseEndDate	8/14/2028	12/31/2028
tblConstructionPhase	PhaseEndDate	12/29/2028	12/31/2028
tblConstructionPhase	PhaseEndDate	1/12/2029	6/12/2028
tblConstructionPhase	PhaseStartDate	6/13/2028	10/30/2028
tblConstructionPhase	PhaseStartDate	1/1/2029	5/30/2028
tblFireplaces	NumberGas	63.75	0.00
tblFireplaces	NumberNoFireplace	7.50	75.00
tblFireplaces	NumberWood	3.75	0.00
tblGrading	AcresOfGrading	10.50	3.00
tblLandUse	LotAcreage	1.97	2.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	510
tblProjectCharacteristics	OperationalYear	2014	2025
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	7.16	5.82
tblVehicleTrips	SU_TR	6.07	5.82

tblVehicleTrips	WD_TR	6.59	5.82
tblWater	IndoorWaterUseRate	4,886,551.92	1,238,235.45
tblWater	OutdoorWaterUseRate	3,080,652.30	847,213.73
tblWoodstoves	NumberCatalytic	3.75	0.00
tblWoodstoves	NumberNoncatalytic	3.75	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0177	0.1549	0.2069	3.4000e-004	0.0678	7.1900e-003	0.0750	0.0357	6.6300e-003	0.0423			29.1294	8.5700e-003	0.0000	29.3095
2028	0.5015	1.7523	2.5766	5.3800e-003	0.1280	0.0733	0.2013	0.0342	0.0689	0.1031			423.5522	0.0767	0.0000	425.1624
Total	**0.5191**	**1.9072**	**2.7835**	**5.7200e-003**	**0.1958**	**0.0805**	**0.2763**	**0.0699**	**0.0756**	**0.1455**			**452.6817**	**0.0852**	**0.0000**	**454.4719**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0177	0.1549	0.2069	3.4000e-004	0.0321	7.1900e-003	0.0393	0.0165	6.6300e-003	0.0231			29.1294	8.5700e-003	0.0000	29.3095
2028	0.5015	1.7523	2.5766	5.3800e-003	0.1280	0.0733	0.2013	0.0342	0.0689	0.1031			423.5519	0.0767	0.0000	425.1620
Total	**0.5191**	**1.9072**	**2.7835**	**5.7200e-003**	**0.1602**	**0.0805**	**0.2406**	**0.0507**	**0.0756**	**0.1263**			**452.6813**	**0.0852**	**0.0000**	**454.4715**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**18.21**	**0.00**	**12.90**	**27.48**	**0.00**	**13.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	12/1/2027	12/29/2027	5	21	
2	Building Construction	Building Construction	12/30/2027	12/31/2028	5	262	
3	Paving	Paving	5/30/2028	6/12/2028	5	10	
4	Architectural Coating	Architectural Coating	10/30/2028	12/31/2028	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 151,875; Residential Outdoor: 50,625; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	59.00	10.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0648	0.0000	0.0648	0.0349	0.0000	0.0349			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1415	0.1830	2.8000e-004		6.6400e-003	6.6400e-003		6.1000e-003	6.1000e-003			24.5857	7.9500e-003	0.0000	24.7527
Total	**0.0159**	**0.1415**	**0.1830**	**2.8000e-004**	**0.0648**	**6.6400e-003**	**0.0715**	**0.0349**	**6.1000e-003**	**0.0410**			**24.5857**	**7.9500e-003**	**0.0000**	**24.7527**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.6000e-004	4.9000e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004			1.4162	6.0000e-005	0.0000	1.4174
Total	**2.7000e-004**	**4.6000e-004**	**4.9000e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**			**1.4162**	**6.0000e-005**	**0.0000**	**1.4174**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0292	0.0000	0.0292	0.0157	0.0000	0.0157			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1415	0.1830	2.8000e-004		6.6400e-003	6.6400e-003		6.1000e-003	6.1000e-003			24.5857	7.9500e-003	0.0000	24.7527
Total	**0.0159**	**0.1415**	**0.1830**	**2.8000e-004**	**0.0292**	**6.6400e-003**	**0.0358**	**0.0157**	**6.1000e-003**	**0.0218**			**24.5857**	**7.9500e-003**	**0.0000**	**24.7527**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.6000e-004	4.9000e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004			1.4162	6.0000e-005	0.0000	1.4174
Total	**2.7000e-004**	**4.6000e-004**	**4.9000e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**			**1.4162**	**6.0000e-005**	**0.0000**	**1.4174**

3.3 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3600e-003	0.0124	0.0161	3.0000e-005		5.3000e-004	5.3000e-004		4.9000e-004	4.9000e-004			2.3096	5.4000e-004	0.0000	2.3210
Total	**1.3600e-003**	**0.0124**	**0.0161**	**3.0000e-005**		**5.3000e-004**	**5.3000e-004**		**4.9000e-004**	**4.9000e-004**			**2.3096**	**5.4000e-004**	**0.0000**	**2.3210**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-005	3.9000e-004	8.5000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005			0.2057	0.0000	0.0000	0.2058
Worker	1.2000e-004	2.0000e-004	2.1200e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004			0.6122	2.0000e-005	0.0000	0.6127
Total	**1.8000e-004**	**5.9000e-004**	**2.9700e-003**	**1.0000e-005**	**9.4000e-004**	**2.0000e-005**	**9.6000e-004**	**2.5000e-004**	**2.0000e-005**	**2.7000e-004**			**0.8179**	**2.0000e-005**	**0.0000**	**0.8184**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3600e-003	0.0124	0.0161	3.0000e-005		5.3000e-004	5.3000e-004		4.9000e-004	4.9000e-004			2.3096	5.4000e-004	0.0000	2.3210
Total	**1.3600e-003**	**0.0124**	**0.0161**	**3.0000e-005**		**5.3000e-004**	**5.3000e-004**		**4.9000e-004**	**4.9000e-004**			**2.3096**	**5.4000e-004**	**0.0000**	**2.3210**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-005	3.9000e-004	8.5000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005			0.2057	0.0000	0.0000	0.2058
Worker	1.2000e-004	2.0000e-004	2.1200e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004			0.6122	2.0000e-005	0.0000	0.6127
Total	**1.8000e-004**	**5.9000e-004**	**2.9700e-003**	**1.0000e-005**	**9.4000e-004**	**2.0000e-005**	**9.6000e-004**	**2.5000e-004**	**2.0000e-005**	**2.7000e-004**			**0.8179**	**2.0000e-005**	**0.0000**	**0.8184**

3.3 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.6133	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642			300.2471	0.0705	0.0000	301.7269
Total	**0.1770**	**1.6133**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**			**300.2471**	**0.0705**	**0.0000**	**301.7269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.4900e-003	0.0498	0.1091	3.1000e-004	9.1700e-003	1.2700e-003	0.0104	2.6200e-003	1.1700e-003	3.7900e-003			26.7474	1.7000e-004	0.0000	26.7511
Worker	0.0147	0.0251	0.2672	1.3500e-003	0.1134	8.2000e-004	0.1142	0.0301	7.6000e-004	0.0309			78.9359	3.0400e-003	0.0000	78.9997
Total	**0.0222**	**0.0748**	**0.3763**	**1.6600e-003**	**0.1226**	**2.0900e-003**	**0.1246**	**0.0327**	**1.9300e-003**	**0.0347**			**105.6834**	**3.2100e-003**	**0.0000**	**105.7508**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.6133	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642			300.2467	0.0705	0.0000	301.7266
Total	**0.1770**	**1.6133**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**			**300.2467**	**0.0705**	**0.0000**	**301.7266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.4900e-003	0.0498	0.1091	3.1000e-004	9.1700e-003	1.2700e-003	0.0104	2.6200e-003	1.1700e-003	3.7900e-003			26.7474	1.7000e-004	0.0000	26.7511
Worker	0.0147	0.0251	0.2672	1.3500e-003	0.1134	8.2000e-004	0.1142	0.0301	7.6000e-004	0.0309			78.9359	3.0400e-003	0.0000	78.9997
Total	**0.0222**	**0.0748**	**0.3763**	**1.6600e-003**	**0.1226**	**2.0900e-003**	**0.1246**	**0.0327**	**1.9300e-003**	**0.0347**			**105.6834**	**3.2100e-003**	**0.0000**	**105.7508**

3.4 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0500e-003	0.0372	0.0600	9.0000e-005		1.7400e-003	1.7400e-003		1.6100e-003	1.6100e-003			8.0691	2.5300e-003	0.0000	8.1223
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**4.4400e-003**	**0.0372**	**0.0600**	**9.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6100e-003**	**1.6100e-003**			**8.0691**	**2.5300e-003**	**0.0000**	**8.1223**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	3.3000e-004	3.4800e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.0292	4.0000e-005	0.0000	1.0300
Total	**1.9000e-004**	**3.3000e-004**	**3.4800e-003**	**2.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.0292**	**4.0000e-005**	**0.0000**	**1.0300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0500e-003	0.0372	0.0600	9.0000e-005		1.7400e-003	1.7400e-003		1.6100e-003	1.6100e-003			8.0691	2.5300e-003	0.0000	8.1223
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**4.4400e-003**	**0.0372**	**0.0600**	**9.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6100e-003**	**1.6100e-003**			**8.0691**	**2.5300e-003**	**0.0000**	**8.1223**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	3.3000e-004	3.4800e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.0292	4.0000e-005	0.0000	1.0300
Total	**1.9000e-004**	**3.3000e-004**	**3.4800e-003**	**2.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.0292**	**4.0000e-005**	**0.0000**	**1.0300**

3.5 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2933					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	3.8400e-003	0.0258	0.0407	7.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			5.7448	3.1000e-004	0.0000	5.7514
Total	**0.2972**	**0.0258**	**0.0407**	**7.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**			**5.7448**	**3.1000e-004**	**0.0000**	**5.7514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	8.8000e-004	9.4100e-003	5.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003			2.7787	1.1000e-004	0.0000	2.7810
Total	**5.2000e-004**	**8.8000e-004**	**9.4100e-003**	**5.0000e-005**	**3.9900e-003**	**3.0000e-005**	**4.0200e-003**	**1.0600e-003**	**3.0000e-005**	**1.0900e-003**			**2.7787**	**1.1000e-004**	**0.0000**	**2.7810**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2933					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	3.8400e-003	0.0258	0.0407	7.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			5.7448	3.1000e-004	0.0000	5.7514
Total	**0.2972**	**0.0258**	**0.0407**	**7.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**			**5.7448**	**3.1000e-004**	**0.0000**	**5.7514**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	8.8000e-004	9.4100e-003	5.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003			2.7787	1.1000e-004	0.0000	2.7810
Total	**5.2000e-004**	**8.8000e-004**	**9.4100e-003**	**5.0000e-005**	**3.9900e-003**	**3.0000e-005**	**4.0200e-003**	**1.0600e-003**	**3.0000e-005**	**1.0900e-003**			**2.7787**	**1.1000e-004**	**0.0000**	**2.7810**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.30	Acre	0.30	13,068.00	0
Apartments Mid Rise	75.00	Dwelling Unit	2.70	75,000.00	215

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	510	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on 2017 IF

Land Use - estimated acreage

Construction Phase - grading: 11/30/29 thru 12/29/29; const.: 12/30/29 thru 12/31/30; paving: 5/30/30 thru 6/12/30; arch: 10/30/30 thru 12/31/30

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - estimated number

Off-road Equipment -

Architectural Coating - no non-residential structures

Vehicle Trips - based on traffic report

Woodstoves - based on project description

Area Coating - no non-residential buildings

Energy Use - .

Water And Wastewater - based on WSA

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	6,534.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	19,602.00	0.00
tblAreaCoating	Area_Nonresidential_Interior	19602	0
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	220.00	262.00
tblConstructionPhase	NumDays	6.00	21.00
tblConstructionPhase	PhaseEndDate	8/14/2030	12/31/2030
tblConstructionPhase	PhaseEndDate	12/28/2029	12/29/2029
tblConstructionPhase	PhaseEndDate	1/14/2031	6/12/2030
tblConstructionPhase	PhaseStartDate	6/13/2030	10/30/2030
tblConstructionPhase	PhaseStartDate	1/1/2031	5/30/2030
tblFireplaces	NumberGas	63.75	0.00
tblFireplaces	NumberNoFireplace	7.50	75.00
tblFireplaces	NumberWood	3.75	0.00
tblGrading	AcresOfGrading	10.50	3.00
tblLandUse	LotAcreage	1.97	2.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	510
tblProjectCharacteristics	OperationalYear	2014	2025
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	7.16	5.82
tblVehicleTrips	SU_TR	6.07	5.82

tblVehicleTrips	WD_TR	6.59	5.82
tblWater	IndoorWaterUseRate	4,886,551.92	1,238,235.45
tblWater	OutdoorWaterUseRate	3,080,652.30	847,213.73
tblWoodstoves	NumberCatalytic	3.75	0.00
tblWoodstoves	NumberNoncatalytic	3.75	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2029	0.0169	0.1484	0.1970	3.2000e-004	0.0673	6.9200e-003	0.0742	0.0356	6.3700e-003	0.0420			27.5399	8.2900e-003	0.0000	27.7139
2030	0.4942	1.1576	2.5835	5.9300e-003	0.1285	0.0231	0.1516	0.0343	0.0230	0.0573			465.7322	0.0177	0.0000	466.1029
Total	**0.5111**	**1.3060**	**2.7805**	**6.2500e-003**	**0.1958**	**0.0300**	**0.2258**	**0.0699**	**0.0293**	**0.0992**			**493.2721**	**0.0259**	**0.0000**	**493.8169**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2029	0.0169	0.1484	0.1970	3.2000e-004	0.0317	6.9200e-003	0.0386	0.0164	6.3700e-003	0.0228			27.5399	8.2900e-003	0.0000	27.7139
2030	0.4942	1.1576	2.5835	5.9300e-003	0.1285	0.0231	0.1516	0.0343	0.0230	0.0573			465.7318	0.0177	0.0000	466.1025
Total	**0.5111**	**1.3060**	**2.7805**	**6.2500e-003**	**0.1602**	**0.0300**	**0.1902**	**0.0507**	**0.0293**	**0.0800**			**493.2717**	**0.0259**	**0.0000**	**493.8164**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**18.21**	**0.00**	**15.79**	**27.49**	**0.00**	**19.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/30/2029	12/29/2029	5	21	
2	Building Construction	Building Construction	12/30/2029	12/31/2030	5	262	
3	Paving	Paving	5/30/2030	6/12/2030	5	10	
4	Architectural Coating	Architectural Coating	10/30/2030	12/31/2030	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 151,875; Residential Outdoor: 50,625; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	59.00	10.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0648	0.0000	0.0648	0.0349	0.0000	0.0349			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1415	0.1830	2.8000e-004		6.6400e-003	6.6400e-003		6.1000e-003	6.1000e-003			24.5857	7.9500e-003	0.0000	24.7527
Total	**0.0159**	**0.1415**	**0.1830**	**2.8000e-004**	**0.0648**	**6.6400e-003**	**0.0715**	**0.0349**	**6.1000e-003**	**0.0410**			**24.5857**	**7.9500e-003**	**0.0000**	**24.7527**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	4.3000e-004	4.6200e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004			1.3950	5.0000e-005	0.0000	1.3961
Total	**2.5000e-004**	**4.3000e-004**	**4.6200e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**			**1.3950**	**5.0000e-005**	**0.0000**	**1.3961**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0292	0.0000	0.0292	0.0157	0.0000	0.0157			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1415	0.1830	2.8000e-004		6.6400e-003	6.6400e-003		6.1000e-003	6.1000e-003			24.5857	7.9500e-003	0.0000	24.7527
Total	**0.0159**	**0.1415**	**0.1830**	**2.8000e-004**	**0.0292**	**6.6400e-003**	**0.0358**	**0.0157**	**6.1000e-003**	**0.0218**			**24.5857**	**7.9500e-003**	**0.0000**	**24.7527**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	4.3000e-004	4.6200e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004			1.3950	5.0000e-005	0.0000	1.3961
Total	**2.5000e-004**	**4.3000e-004**	**4.6200e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**			**1.3950**	**5.0000e-005**	**0.0000**	**1.3961**

3.3 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.8000e-004	6.2000e-003	8.0300e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004			1.1548	2.7000e-004	0.0000	1.1605
Total	**6.8000e-004**	**6.2000e-003**	**8.0300e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.5000e-004**	**2.5000e-004**			**1.1548**	**2.7000e-004**	**0.0000**	**1.1605**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.9000e-004	4.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.1029	0.0000	0.0000	0.1029
Worker	5.0000e-005	9.0000e-005	1.0000e-003	1.0000e-005	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004			0.3015	1.0000e-005	0.0000	0.3017
Total	**8.0000e-005**	**2.8000e-004**	**1.4200e-003**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**			**0.4044**	**1.0000e-005**	**0.0000**	**0.4046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.8000e-004	6.2000e-003	8.0300e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004			1.1548	2.7000e-004	0.0000	1.1605
Total	**6.8000e-004**	**6.2000e-003**	**8.0300e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.5000e-004**	**2.5000e-004**			**1.1548**	**2.7000e-004**	**0.0000**	**1.1605**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.9000e-004	4.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.1029	0.0000	0.0000	0.1029
Worker	5.0000e-005	9.0000e-005	1.0000e-003	1.0000e-005	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004			0.3015	1.0000e-005	0.0000	0.3017
Total	**8.0000e-005**	**2.8000e-004**	**1.4200e-003**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**			**0.4044**	**1.0000e-005**	**0.0000**	**0.4046**

3.3 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193			341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**			**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.3600e-003	0.0495	0.1078	3.2000e-004	9.2100e-003	1.2800e-003	0.0105	2.6300e-003	1.1800e-003	3.8100e-003			26.8577	1.8000e-004	0.0000	26.8614
Worker	0.0137	0.0236	0.2534	1.3500e-003	0.1138	8.3000e-004	0.1147	0.0302	7.7000e-004	0.0310			78.2159	2.9300e-003	0.0000	78.2775
Total	**0.0211**	**0.0731**	**0.3612**	**1.6700e-003**	**0.1230**	**2.1100e-003**	**0.1251**	**0.0329**	**1.9500e-003**	**0.0348**			**105.0736**	**3.1100e-003**	**0.0000**	**105.1389**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193			341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**			**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.3600e-003	0.0495	0.1078	3.2000e-004	9.2100e-003	1.2800e-003	0.0105	2.6300e-003	1.1800e-003	3.8100e-003			26.8577	1.8000e-004	0.0000	26.8614
Worker	0.0137	0.0236	0.2534	1.3500e-003	0.1138	8.3000e-004	0.1147	0.0302	7.7000e-004	0.0310			78.2159	2.9300e-003	0.0000	78.2775
Total	**0.0211**	**0.0731**	**0.3612**	**1.6700e-003**	**0.1230**	**2.1100e-003**	**0.1251**	**0.0329**	**1.9500e-003**	**0.0348**			**105.0736**	**3.1100e-003**	**0.0000**	**105.1389**

3.4 Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6900e-003	0.0308	0.0645	1.1000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003			9.6270	4.6000e-004	0.0000	9.6367
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**6.0800e-003**	**0.0308**	**0.0645**	**1.1000e-004**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**			**9.6270**	**4.6000e-004**	**0.0000**	**9.6367**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	3.1000e-004	3.2900e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.0159	4.0000e-005	0.0000	1.0167
Total	**1.8000e-004**	**3.1000e-004**	**3.2900e-003**	**2.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.0159**	**4.0000e-005**	**0.0000**	**1.0167**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6900e-003	0.0308	0.0645	1.1000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003			9.6270	4.6000e-004	0.0000	9.6367
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**6.0800e-003**	**0.0308**	**0.0645**	**1.1000e-004**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**			**9.6270**	**4.6000e-004**	**0.0000**	**9.6367**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	3.1000e-004	3.2900e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.0159	4.0000e-005	0.0000	1.0167
Total	**1.8000e-004**	**3.1000e-004**	**3.2900e-003**	**2.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.0159**	**4.0000e-005**	**0.0000**	**1.0167**

3.5 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2933					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	2.9400e-003	0.0193	0.0405	7.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004			5.7448	2.3000e-004	0.0000	5.7497
Total	**0.2963**	**0.0193**	**0.0405**	**7.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**			**5.7448**	**2.3000e-004**	**0.0000**	**5.7497**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	8.3000e-004	8.8900e-003	5.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003			2.7428	1.0000e-004	0.0000	2.7450
Total	**4.8000e-004**	**8.3000e-004**	**8.8900e-003**	**5.0000e-005**	**3.9900e-003**	**3.0000e-005**	**4.0200e-003**	**1.0600e-003**	**3.0000e-005**	**1.0900e-003**			**2.7428**	**1.0000e-004**	**0.0000**	**2.7450**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2933					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	2.9400e-003	0.0193	0.0405	7.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004			5.7448	2.3000e-004	0.0000	5.7497
Total	**0.2963**	**0.0193**	**0.0405**	**7.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**			**5.7448**	**2.3000e-004**	**0.0000**	**5.7497**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	8.3000e-004	8.8900e-003	5.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003			2.7428	1.0000e-004	0.0000	2.7450
Total	**4.8000e-004**	**8.3000e-004**	**8.8900e-003**	**5.0000e-005**	**3.9900e-003**	**3.0000e-005**	**4.0200e-003**	**1.0600e-003**	**3.0000e-005**	**1.0900e-003**			**2.7428**	**1.0000e-004**	**0.0000**	**2.7450**

Alternative 3 - Maximum Buildout
Winter - Construction
Planning Area 3a

Year	CO2e MT/yr
2018	444.43
2019	918.2878
2020	1137.1813
	2499.8991
	83.32997

Alternative 3 - Maximum Buildout
Winter - Construction
Planning Area 3b

Year	CO2e MT/yr
2021	683.498
2022	1027.7279
2023	556.9145
	2268.1404
	75.60468

Alternative 3 - Maximum Buildout
Winter - Construction
Planning Area 3c

Year	CO2e MT/yr
2023	258.1709
2024	904.0518
2025	1086.663
	2248.8857
	74.96285667

Planning Area 4

Year	CO2e MT/yr
2024	404.9275
2025	52.8284
	457.7559
	15.25853

Planning Areas 5

Year	CO2e MT/yr
2027	29.3095
2028	425.162
	454.4715
	15.14905

Planning Area 8

Year	CO2e MT/yr
2029	27.7139
2030	466.1025
	493.8164
	16.46054667

P3, P4, P5 and P8 Combined

Year	CO2e MT/yr
2018	444
2019	918
2020	1137
2021	683
2022	1028
2023	815
2024	1309
2025	1139
2026	1
2027	29
2028	425
2029	28
2030	466
	8424
Thresholds:	**281**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	416.00	Dwelling Unit	16.65	353,600.00	828
Retirement Community	139.00	Dwelling Unit	5.55	118,150.00	195

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	381	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO intensity is based on current SDG&E intensity and 50% RPS by 2030. This run is for operations only.

Land Use - Acreage based on project description. Population based project description; 1.99 per all-age and 1.4 for seniors.

Vehicle Trips - Information taken from Traffic Report for project.

Woodstoves - Based on project description.

Energy Use - .

Water And Wastewater - Information from WSA for project

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation - Energy mitigation based on 2016 Building Code

Water Mitigation - Reclaimed water based on project description. Low-flow based on Building Code requirements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	318,431.00	654,885.00
tblArchitecturalCoating	ConstArea_Residential_Interior	955,294.00	1,964,655.00
tblAreaCoating	Area_Residential_Exterior	318431	654885
tblAreaCoating	Area_Residential_Interior	955294	1964655
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	370.00	740.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	35.00	75.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	10.00	30.00
tblFireplaces	NumberGas	353.60	0.00
tblFireplaces	NumberGas	118.15	0.00
tblFireplaces	NumberNoFireplace	41.60	416.00
tblFireplaces	NumberNoFireplace	13.90	136.00
tblFireplaces	NumberWood	20.80	0.00
tblFireplaces	NumberWood	6.95	0.00
tblLandUse	LandUseSquareFeet	416,000.00	353,600.00
tblLandUse	LandUseSquareFeet	139,000.00	118,150.00
tblLandUse	LotAcreage	10.95	16.65
tblLandUse	LotAcreage	27.80	5.55
tblLandUse	Population	1,190.00	828.00
tblLandUse	Population	398.00	195.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	381
tblProjectCharacteristics	OperationalYear	2014	2030
tblSolidWaste	SolidWasteGenerationRate	191.36	382.72
tblSolidWaste	SolidWasteGenerationRate	63.94	127.88
tblTripsAndVMT	VendorTripNumber	59.00	119.00

tblTripsAndVMT	WorkerTripNumber	400.00	799.00
tblTripsAndVMT	WorkerTripNumber	80.00	160.00
tblVehicleTrips	ST_TR	7.16	7.22
tblVehicleTrips	ST_TR	2.81	3.44
tblVehicleTrips	SU_TR	6.07	6.13
tblVehicleTrips	SU_TR	2.81	3.44
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	2.81	3.44
tblWater	IndoorWaterUseRate	27,104,074.66	36,288,965.00
tblWater	IndoorWaterUseRate	9,056,409.56	0.00
tblWater	OutdoorWaterUseRate	17,087,351.42	6,322,460.00
tblWater	OutdoorWaterUseRate	5,709,475.59	0.00
tblWoodstoves	NumberCatalytic	20.80	0.00
tblWoodstoves	NumberCatalytic	6.95	0.00
tblWoodstoves	NumberNoncatalytic	20.80	0.00
tblWoodstoves	NumberNoncatalytic	6.95	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.2548	0.0658	5.7084	3.0000e-004		0.0317	0.0317		0.0317	0.0317			9.3493	8.9100e-003	0.0000	9.5363
Energy	0.0226	0.1934	0.0823	1.2300e-003		0.0156	0.0156		0.0156	0.0156			576.5844	0.0311	9.6600e-003	580.2325
Mobile	1.1502	2.4894	12.6713	0.0588	4.1968	0.0621	4.2589	1.1219	0.0574	1.1793			3,751.7113	0.1103	0.0000	3,754.0276
Waste						0.0000	0.0000		0.0000	0.0000			103.6472	6.1254	0.0000	~~232.2800~~
Water						0.0000	0.0000		0.0000	0.0000			105.3121	1.1896	0.0294	139.4074
Total	**3.4277**	**2.7486**	**18.4620**	**0.0603**	**4.1968**	**0.1095**	**4.3062**	**1.1219**	**0.1047**	**1.2266**			**4,546.6042**	**7.4653**	**0.0391**	**~~4,715.4838~~**

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correct CalEEMod error

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.2548	0.0658	5.7084	3.0000e-004		0.0317	0.0317		0.0317	0.0317			9.3493	8.9100e-003	0.0000	9.5363
Energy	0.0150	0.1280	0.0545	8.2000e-004		0.0103	0.0103		0.0103	0.0103			493.1556	0.0291	8.1500e-003	496.2930
Mobile	1.1502	2.4894	12.6713	0.0588	4.1968	0.0621	4.2589	1.1219	0.0574	1.1793			3,751.7113	0.1103	0.0000	3,754.0276
Waste						0.0000	0.0000		0.0000	0.0000			103.6472	6.1254	0.0000	~~232.2800~~ 116
Water						0.0000	0.0000		0.0000	0.0000			85.1664	0.9516	0.0235	112.4339
Total	**3.4200**	**2.6831**	**18.4341**	**0.0599**	**4.1968**	**0.1042**	**4.3009**	**1.1219**	**0.0994**	**1.2213**			**4,443.0298**	**7.2253**	**0.0317**	**~~4,604.5708~~** 4,488

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.22**	**2.38**	**0.15**	**0.68**	**0.00**	**4.84**	**0.12**	**0.00**	**5.06**	**0.43**	**0.00**	**0.00**	**2.28**	**3.22**	**18.97**	**2.35**

correct CalEEMod error

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1502	2.4894	12.6713	0.0588	4.1968	0.0621	4.2589	1.1219	0.0574	1.1793			3,751.7113	0.1103	0.0000	3,754.0276
Unmitigated	1.1502	2.4894	12.6713	0.0588	4.1968	0.0621	4.2589	1.1219	0.0574	1.1793			3,751.7113	0.1103	0.0000	3,754.0276

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,766.40	3,003.52	2550.08	9,463,363	9,463,363
Retirement Community	478.16	478.16	478.16	1,633,945	1,633,945
Total	3,244.56	3,481.68	3,028.24	11,097,308	11,097,308

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Retirement Community	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.492231	0.057714	0.199426	0.154905	0.042875	0.006205	0.016809	0.019001	0.001507	0.002240	0.003750	0.000476	0.002861

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			344.9804	0.0263	5.4300e-003	347.2160
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			352.5811	0.0268	5.5500e-003	354.8659
NaturalGas Mitigated	0.0150	0.1280	0.0545	8.2000e-004		0.0103	0.0103		0.0103	0.0103			148.1752	2.8400e-003	2.7200e-003	149.0770
NaturalGas Unmitigated	0.0226	0.1934	0.0823	1.2300e-003		0.0156	0.0156		0.0156	0.0156			224.0033	4.2900e-003	4.1100e-003	225.3666

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.28071e+006	0.0123	0.1051	0.0447	6.7000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003			121.7072	2.3300e-003	2.2300e-003	122.4479
Retirement Community	1.91696e+006	0.0103	0.0883	0.0376	5.6000e-004		7.1400e-003	7.1400e-003		7.1400e-003	7.1400e-003			102.2961	1.9600e-003	1.8800e-003	102.9186
Total		**0.0226**	**0.1934**	**0.0823**	**1.2300e-003**		**0.0156**	**0.0156**		**0.0156**	**0.0156**			**224.0033**	**4.2900e-003**	**4.1100e-003**	**225.3666**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.54962e+006	8.3600e-003	0.0714	0.0304	4.6000e-004		5.7700e-003	5.7700e-003		5.7700e-003	5.7700e-003			82.6938	1.5800e-003	1.5200e-003	83.1970
Retirement Community	1.22708e+006	6.6200e-003	0.0565	0.0241	3.6000e-004		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003			65.4815	1.2600e-003	1.2000e-003	65.8800
Total		**0.0150**	**0.1279**	**0.0544**	**8.2000e-004**		**0.0103**	**0.0103**		**0.0103**	**0.0103**			**148.1752**	**2.8400e-003**	**2.7200e-003**	**149.0770**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.43773e+006	248.4658	0.0189	3.9100e-003	250.0759
Retirement Community	602454	104.1153	7.9200e-003	1.6400e-003	104.7900
Total		**352.5811**	**0.0268**	**5.5500e-003**	**354.8659**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.40696e+006	243.1490	0.0185	3.8300e-003	244.7247
Retirement Community	589238	101.8314	7.7500e-003	1.6000e-003	102.4913
Total		**344.9804**	**0.0263**	**5.4300e-003**	**347.2160**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.2548	0.0658	5.7084	3.0000e-004		0.0317	0.0317		0.0317	0.0317			9.3493	8.9100e-003	0.0000	9.5363
Unmitigated	2.2548	0.0658	5.7084	3.0000e-004		0.0317	0.0317		0.0317	0.0317			9.3493	8.9100e-003	0.0000	9.5363

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3794					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7047					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.1707	0.0658	5.7084	3.0000e-004		0.0317	0.0317		0.0317	0.0317			9.3493	8.9100e-003	0.0000	9.5363
Total	**2.2548**	**0.0658**	**5.7084**	**3.0000e-004**		**0.0317**	**0.0317**		**0.0317**	**0.0317**			**9.3493**	**8.9100e-003**	**0.0000**	**9.5363**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3794					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7047					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.1707	0.0658	5.7084	3.0000e-004		0.0317	0.0317		0.0317	0.0317			9.3493	8.9100e-003	0.0000	9.5363
Total	**2.2548**	**0.0658**	**5.7084**	**3.0000e-004**		**0.0317**	**0.0317**		**0.0317**	**0.0317**			**9.3493**	**8.9100e-003**	**0.0000**	**9.5363**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	85.1664	0.9516	0.0235	112.4339
Unmitigated	105.3121	1.1896	0.0294	139.4074

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	36.289 / 6.32246	105.3121	1.1896	0.0294	139.4074
Retirement Community	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**105.3121**	**1.1896**	**0.0294**	**139.4074**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	29.0312 / 5.53542	85.1664	0.9516	0.0235	112.4339
Retirement Community	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**85.1664**	**0.9516**	**0.0235**	**112.4339**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	103.6472	6.1254	0.0000	232.2800
Unmitigated	103.6472	6.1254	0.0000	232.2800

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	382.72	77.6887	4.5913	0.0000	174.1054
Retirement Community	127.88	25.9585	1.5341	0.0000	58.1746
Total		**103.6472**	**6.1254**	**0.0000**	**232.2800**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	382.72	77.6887	4.5913	0.0000	174.1054
Retirement Community	127.88	25.9585	1.5341	0.0000	58.1746
Total		**103.6472**	**6.1254**	**0.0000**	**232.2800**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	555.00	Dwelling Unit	22.20	471,750.00	1104
Retirement Community	185.00	Dwelling Unit	7.40	157,250.00	259

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	381	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.00617

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO intensity is based on current SDG&E intensity and 50% RPS by 2030. This run is for operations only.

Land Use - Acreage based on project description. Population based project description; 1.99 per all-age and 1.4 for seniors.

Vehicle Trips - Information taken from Traffic Report for project.

Woodstoves - Based on project description.

Energy Use - .

Water And Wastewater - Information from WSA for project

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation - Energy mitigation based on 2016 Building Code

Water Mitigation - Reclaimed water based on project description. Low-flow based on Building Code requirements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	424,575.00	654,885.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,273,725.00	1,964,655.00
tblAreaCoating	Area_Residential_Exterior	424575	654885
tblAreaCoating	Area_Residential_Interior	1273725	1964655
tblConstructionPhase	NumDays	35.00	55.00
tblConstructionPhase	NumDays	440.00	740.00
tblConstructionPhase	NumDays	30.00	50.00
tblConstructionPhase	NumDays	45.00	75.00
tblConstructionPhase	NumDays	35.00	55.00
tblConstructionPhase	NumDays	20.00	30.00
tblFireplaces	NumberGas	471.75	0.00
tblFireplaces	NumberGas	157.25	0.00
tblFireplaces	NumberNoFireplace	55.50	555.00
tblFireplaces	NumberNoFireplace	18.50	185.00
tblFireplaces	NumberWood	27.75	0.00
tblFireplaces	NumberWood	9.25	0.00
tblLandUse	LandUseSquareFeet	555,000.00	471,750.00
tblLandUse	LandUseSquareFeet	185,000.00	157,250.00
tblLandUse	LotAcreage	14.61	22.20
tblLandUse	LotAcreage	37.00	7.40
tblLandUse	Population	1,587.00	1,104.00
tblLandUse	Population	529.00	259.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	381
tblProjectCharacteristics	OperationalYear	2014	2030
tblSolidWaste	SolidWasteGenerationRate	255.30	382.72
tblSolidWaste	SolidWasteGenerationRate	85.10	127.88
tblTripsAndVMT	VendorTripNumber	79.00	119.00

tblTripsAndVMT	WorkerTripNumber	533.00	799.00
tblTripsAndVMT	WorkerTripNumber	107.00	160.00
tblVehicleTrips	ST_TR	7.16	7.22
tblVehicleTrips	ST_TR	2.81	3.44
tblVehicleTrips	SU_TR	6.07	6.13
tblVehicleTrips	SU_TR	2.81	3.44
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	2.81	3.44
tblWater	IndoorWaterUseRate	36,160,484.22	48,385,281.00
tblWater	IndoorWaterUseRate	12,053,494.74	0.00
tblWater	OutdoorWaterUseRate	22,796,827.01	8,429,946.00
tblWater	OutdoorWaterUseRate	7,598,942.34	0.00
tblWoodstoves	NumberCatalytic	27.75	0.00
tblWoodstoves	NumberCatalytic	9.25	0.00
tblWoodstoves	NumberNoncatalytic	27.75	0.00
tblWoodstoves	NumberNoncatalytic	9.25	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8800	0.0877	7.6112	4.0000e-004		0.0423	0.0423		0.0423	0.0423			12.4657	0.0119	0.0000	12.7151
Energy	0.0302	0.2578	0.1097	1.6500e-003		0.0208	0.0208		0.0208	0.0208			768.5808	0.0415	0.0131	773.5087
Mobile	1.5340	3.3200	16.8992	0.0784	5.5971	0.0828	5.6799	1.4962	0.0765	1.5727			5,003.5206	0.1471	0.0000	5,006.6097
Waste						0.0000	0.0000		0.0000	0.0000			103.6472	6.1254	0.0000	~~232.2800~~
Water						0.0000	0.0000		0.0000	0.0000			140.4161	1.5862	0.0393	185.8938
Total	**4.4441**	**3.6655**	**24.6201**	**0.0804**	**5.5971**	**0.1460**	**5.7431**	**1.4962**	**0.1397**	**1.6359**			**6,028.6304**	**7.9120**	**0.0523**	**~~6,211.0073~~**

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correct CalEEMod error

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8800	0.0877	7.6112	4.0000e-004		0.0423	0.0423		0.0423	0.0423			12.4657	0.0119	0.0000	12.7151
Energy	0.0200	0.1705	0.0726	1.0900e-003		0.0138	0.0138		0.0138	0.0138			657.4007	0.0388	0.0111	661.6465
Mobile	1.5340	3.3200	16.8992	0.0784	5.5971	0.0828	5.6799	1.4962	0.0765	1.5727			5,003.5206	0.1471	0.0000	5,006.6097
Waste						0.0000	0.0000		0.0000	0.0000			103.6472	6.1254	0.0000	~~232.2800~~
Water						0.0000	0.0000		0.0000	0.0000			113.5552	1.2688	0.0314	149.9254
Total	**4.4339**	**3.5783**	**24.5830**	**0.0799**	**5.5971**	**0.1389**	**5.7360**	**1.4962**	**0.1326**	**1.6289**			**5,890.5893**	**7.5919**	**0.0424**	**~~6,063.1768~~**

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5,987

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.23**	**2.38**	**0.15**	**0.70**	**0.00**	**4.83**	**0.12**	**0.00**	**5.05**	**0.43**	**0.00**	**0.00**	**2.29**	**4.05**	**18.91**	**2.38**

correct CalEEMod error

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5340	3.3200	16.8992	0.0784	5.5971	0.0828	5.6799	1.4962	0.0765	1.5727			5,003.5206	0.1471	0.0000	5,006.6097
Unmitigated	1.5340	3.3200	16.8992	0.0784	5.5971	0.0828	5.6799	1.4962	0.0765	1.5727			5,003.5206	0.1471	0.0000	5,006.6097

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,690.75	4,007.10	3402.15	12,625,400	12,625,400
Retirement Community	636.40	636.40	636.40	2,174,675	2,174,675
Total	4,327.15	4,643.50	4,038.55	14,800,075	14,800,075

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Retirement Community	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.492231	0.057714	0.199426	0.154905	0.042875	0.006205	0.016809	0.019001	0.001507	0.002240	0.003750	0.000476	0.002861

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			459.9245	0.0350	7.4500e-003	462.9685
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			470.0575	0.0358	7.6100e-003	473.1686
NaturalGas Mitigated	0.0200	0.1705	0.0726	1.0900e-003		0.0138	0.0138		0.0138	0.0138			197.4762	3.7800e-003	3.6200e-003	198.6780
NaturalGas Unmitigated	0.0302	0.2578	0.1097	1.6500e-003		0.0208	0.0208		0.0208	0.0208			298.5233	5.7200e-003	5.4700e-003	300.3401

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.04277e+006	0.0164	0.1402	0.0597	8.9000e-004		0.0113	0.0113		0.0113	0.0113			162.3738	3.1100e-003	2.9800e-003	163.3620
Retirement Community	2.55134e+006	0.0138	0.1176	0.0500	7.5000e-004		9.5100e-003	9.5100e-003		9.5100e-003	9.5100e-003			136.1495	2.6100e-003	2.5000e-003	136.9780
Total		**0.0302**	**0.2578**	**0.1097**	**1.6400e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**			**298.5233**	**5.7200e-003**	**5.4800e-003**	**300.3401**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0674e+006	0.0112	0.0953	0.0405	6.1000e-004		7.7000e-003	7.7000e-003		7.7000e-003	7.7000e-003			110.3246	2.1100e-003	2.0200e-003	110.9960
Retirement Community	1.63316e+006	8.8100e-003	0.0753	0.0320	4.8000e-004		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003			87.1516	1.6700e-003	1.6000e-003	87.6820
Total		**0.0200**	**0.1705**	**0.0726**	**1.0900e-003**		**0.0138**	**0.0138**		**0.0138**	**0.0138**			**197.4762**	**3.7800e-003**	**3.6200e-003**	**198.6780**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.91812e+006	331.4868	0.0252	5.3700e-003	333.6808
Retirement Community	801827	138.5707	0.0106	2.2400e-003	139.4878
Total		**470.0575**	**0.0358**	**7.6100e-003**	**473.1686**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.87707e+006	324.3935	0.0247	5.2500e-003	326.5406
Retirement Community	784238	135.5309	0.0103	2.1900e-003	136.4280
Total		**459.9245**	**0.0350**	**7.4400e-003**	**462.9685**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8800	0.0877	7.6112	4.0000e-004		0.0423	0.0423		0.0423	0.0423			12.4657	0.0119	0.0000	12.7151
Unmitigated	2.8800	0.0877	7.6112	4.0000e-004		0.0423	0.0423		0.0423	0.0423			12.4657	0.0119	0.0000	12.7151

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3794					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2729					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.2277	0.0877	7.6112	4.0000e-004		0.0423	0.0423		0.0423	0.0423			12.4657	0.0119	0.0000	12.7151
Total	**2.8800**	**0.0877**	**7.6112**	**4.0000e-004**		**0.0423**	**0.0423**		**0.0423**	**0.0423**			**12.4657**	**0.0119**	**0.0000**	**12.7151**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3794					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2729					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.2277	0.0877	7.6112	4.0000e-004		0.0423	0.0423		0.0423	0.0423			12.4657	0.0119	0.0000	12.7151
Total	**2.8800**	**0.0877**	**7.6112**	**4.0000e-004**		**0.0423**	**0.0423**		**0.0423**	**0.0423**			**12.4657**	**0.0119**	**0.0000**	**12.7151**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	113.5552	1.2688	0.0314	149.9254
Unmitigated	140.4161	1.5862	0.0393	185.8938

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	48.3853 / 8.42995	140.4161	1.5862	0.0393	185.8938
Retirement Community	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**140.4161**	**1.5862**	**0.0393**	**185.8938**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	38.7082 / 7.38057	113.5552	1.2688	0.0314	149.9254
Retirement Community	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**113.5552**	**1.2688**	**0.0314**	**149.9254**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	103.6472	6.1254	0.0000	232.2800
Unmitigated	103.6472	6.1254	0.0000	232.2800

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	382.72	77.6887	4.5913	0.0000	174.1054
Retirement Community	127.88	25.9585	1.5341	0.0000	58.1746
Total		**103.6472**	**6.1254**	**0.0000**	**232.2800**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	382.72	77.6887	4.5913	0.0000	174.1054
Retirement Community	127.88	25.9585	1.5341	0.0000	58.1746
Total		**103.6472**	**6.1254**	**0.0000**	**232.2800**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	832.00	Dwelling Unit	33.30	707,200.00	1656
Retirement Community	278.00	Dwelling Unit	11.10	236,300.00	389

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	381	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.00617

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO intensity is based on current SDG&E intensity and 50% RPS by 2030. This run is for operations only.

Land Use - Acreage based on project description. Population based project description; 1.99 per all-age and 1.4 for seniors.

Vehicle Trips - Information taken from Traffic Report for project.

Woodstoves - Based on project description.

Energy Use - .

Water And Wastewater - Information from WSA for project

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation - Energy mitigation based on 2016 Building Code

Water Mitigation - Reclaimed water based on project description. Low-flow based on Building Code requirements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	636,863.00	654,885.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,910,588.00	1,964,655.00
tblAreaCoating	Area_Residential_Exterior	636863	654885
tblAreaCoating	Area_Residential_Interior	1910588	1964655
tblFireplaces	NumberGas	707.20	0.00
tblFireplaces	NumberGas	236.30	0.00
tblFireplaces	NumberNoFireplace	83.20	832.00
tblFireplaces	NumberNoFireplace	27.80	278.00
tblFireplaces	NumberWood	41.60	0.00
tblFireplaces	NumberWood	13.90	0.00
tblLandUse	LandUseSquareFeet	832,000.00	707,200.00
tblLandUse	LandUseSquareFeet	278,000.00	236,300.00
tblLandUse	LotAcreage	21.89	33.30
tblLandUse	LotAcreage	55.60	11.10
tblLandUse	Population	2,380.00	1,656.00
tblLandUse	Population	795.00	389.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	381
tblProjectCharacteristics	OperationalYear	2014	2030
tblVehicleTrips	ST_TR	7.16	7.22
tblVehicleTrips	ST_TR	2.81	3.44
tblVehicleTrips	SU_TR	6.07	6.13
tblVehicleTrips	SU_TR	2.81	3.44
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	2.81	3.44
tblWater	IndoorWaterUseRate	54,208,149.32	72,577,930.00
tblWater	IndoorWaterUseRate	18,112,819.12	0.00
tblWater	OutdoorWaterUseRate	34,174,702.83	12,644,920.00

tblWater	OutdoorWaterUseRate	11,418,951.19	0.00
tblWoodstoves	NumberCatalytic	41.60	0.00
tblWoodstoves	NumberCatalytic	13.90	0.00
tblWoodstoves	NumberNoncatalytic	41.60	0.00
tblWoodstoves	NumberNoncatalytic	13.90	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.1303	0.1316	11.4168	6.0000e-004		0.0635	0.0635		0.0635	0.0635			18.6986	0.0178	0.0000	19.0727
Energy	0.0453	0.3868	0.1646	2.4700e-003		0.0313	0.0313		0.0313	0.0313			1,153.1687	0.0623	0.0196	1,160.5624
Mobile	2.3004	4.9788	25.3426	0.1175	8.3935	0.1242	8.5177	2.2438	0.1147	2.3585			7,503.4226	0.2206	0.0000	7,508.0551
Waste						0.0000	0.0000		0.0000	0.0000			103.6472	6.1254	0.0000	232.2800
Water						0.0000	0.0000		0.0000	0.0000			210.6242	2.3792	0.0589	278.8407
Total	**6.4759**	**5.4972**	**36.9240**	**0.1206**	**8.3935**	**0.2189**	**8.6125**	**2.2438**	**0.2095**	**2.4533**			**8,989.5613**	**8.8053**	**0.0785**	**9,198.8110**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.1303	0.1316	11.4168	6.0000e-004		0.0635	0.0635		0.0635	0.0635			18.6986	0.0178	0.0000	19.0727
Energy	0.0299	0.2559	0.1089	1.6300e-003		0.0207	0.0207		0.0207	0.0207			986.3112	0.0582	0.0166	992.6813
Mobile	2.3004	4.9788	25.3426	0.1175	8.3935	0.1242	8.5177	2.2438	0.1147	2.3585			7,503.4226	0.2206	0.0000	7,508.0551
Waste						0.0000	0.0000		0.0000	0.0000			103.6472	6.1254	0.0000	232.2800
Water						0.0000	0.0000		0.0000	0.0000			170.3328	1.9032	0.0471	224.8882
Total	**6.4606**	**5.3663**	**36.8683**	**0.1197**	**8.3935**	**0.2084**	**8.6019**	**2.2438**	**0.1989**	**2.4427**			**8,782.4123**	**8.3252**	**0.0637**	**8,976.9773**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.24**	**2.38**	**0.15**	**0.70**	**0.00**	**4.84**	**0.12**	**0.00**	**5.06**	**0.43**	**0.00**	**0.00**	**2.30**	**5.45**	**18.90**	**2.41**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3004	4.9788	25.3426	0.1175	8.3935	0.1242	8.5177	2.2438	0.1147	2.3585			7,503.4226	0.2206	0.0000	7,508.0551
Unmitigated	2.3004	4.9788	25.3426	0.1175	8.3935	0.1242	8.5177	2.2438	0.1147	2.3585			7,503.4226	0.2206	0.0000	7,508.0551

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	5,532.80	6,007.04	5100.16	18,926,726	18,926,726
Retirement Community	956.32	956.32	956.32	3,267,891	3,267,891
Total	6,489.12	6,963.36	6,056.48	22,194,617	22,194,617

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Retirement Community	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.492231	0.057714	0.199426	0.154905	0.042875	0.006205	0.016809	0.019001	0.001507	0.002240	0.003750	0.000476	0.002861

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			689.9607	0.0525	0.0112	694.5273
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			705.1621	0.0537	0.0114	709.8293
NaturalGas Mitigated	0.0299	0.2559	0.1089	1.6300e-003		0.0207	0.0207		0.0207	0.0207			296.3505	5.6800e-003	5.4300e-003	298.1540
NaturalGas Unmitigated	0.0453	0.3868	0.1646	2.4700e-003		0.0313	0.0313		0.0313	0.0313			448.0066	8.5900e-003	8.2100e-003	450.7331

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Retirement Community	3.83391e+006	0.0207	0.1767	0.0752	1.1300e-003		0.0143	0.0143		0.0143	0.0143			204.5921	3.9200e-003	3.7500e-003	205.8373
Apartments Mid Rise	4.56142e+006	0.0246	0.2102	0.0894	1.3400e-003		0.0170	0.0170		0.0170	0.0170			243.4145	4.6700e-003	4.4600e-003	244.8959
Total		**0.0453**	**0.3868**	**0.1646**	**2.4700e-003**		**0.0313**	**0.0313**		**0.0313**	**0.0313**			**448.0066**	**8.5900e-003**	**8.2100e-003**	**450.7331**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.09924e+006	0.0167	0.1428	0.0608	9.1000e-004		0.0116	0.0116		0.0116	0.0116			165.3875	3.1700e-003	3.0300e-003	166.3940
Retirement Community	2.45415e+006	0.0132	0.1131	0.0481	7.2000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003			130.9630	2.5100e-003	2.4000e-003	131.7600
Total		**0.0299**	**0.2559**	**0.1089**	**1.6300e-003**		**0.0207**	**0.0207**		**0.0207**	**0.0207**			**296.3505**	**5.6800e-003**	**5.4300e-003**	**298.1540**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.87545e+006	496.9316	0.0378	8.0500e-003	500.2206
Retirement Community	1.20491e+006	208.2306	0.0159	3.3700e-003	209.6088
Total		**705.1621**	**0.0537**	**0.0114**	**709.8293**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.81392e+006	486.2980	0.0370	7.8800e-003	489.5167
Retirement Community	1.17848e+006	203.6627	0.0155	3.3000e-003	205.0107
Total		**689.9607**	**0.0525**	**0.0112**	**694.5273**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.1303	0.1316	11.4168	6.0000e-004		0.0635	0.0635		0.0635	0.0635			18.6986	0.0178	0.0000	19.0727
Unmitigated	4.1303	0.1316	11.4168	6.0000e-004		0.0635	0.0635		0.0635	0.0635			18.6986	0.0178	0.0000	19.0727

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3794					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	3.4093					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.3415	0.1316	11.4168	6.0000e-004		0.0635	0.0635		0.0635	0.0635			18.6986	0.0178	0.0000	19.0727
Total	**4.1303**	**0.1316**	**11.4168**	**6.0000e-004**		**0.0635**	**0.0635**		**0.0635**	**0.0635**			**18.6986**	**0.0178**	**0.0000**	**19.0727**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3794					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	3.4093					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.3415	0.1316	11.4168	6.0000e-004		0.0635	0.0635		0.0635	0.0635			18.6986	0.0178	0.0000	19.0727
Total	**4.1303**	**0.1316**	**11.4168**	**6.0000e-004**		**0.0635**	**0.0635**		**0.0635**	**0.0635**			**18.6986**	**0.0178**	**0.0000**	**19.0727**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	170.3328	1.9032	0.0471	224.8882
Unmitigated	210.6242	2.3792	0.0589	278.8407

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	72.5779 / 12.6449	210.6242	2.3792	0.0589	278.8407
Retirement Community	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**210.6242**	**2.3792**	**0.0589**	**278.8407**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	58.0623 / 11.0708	170.3328	1.9032	0.0471	224.8882
Retirement Community	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**170.3328**	**1.9032**	**0.0471**	**224.8882**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	103.6472	6.1254	0.0000	232.2800
Unmitigated	103.6472	6.1254	0.0000	232.2800

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	382.72	77.6887	4.5913	0.0000	174.1054
Retirement Community	127.88	25.9585	1.5341	0.0000	58.1746
Total		**103.6472**	**6.1254**	**0.0000**	**232.2800**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	382.72	77.6887	4.5913	0.0000	174.1054
Retirement Community	127.88	25.9585	1.5341	0.0000	58.1746
Total		**103.6472**	**6.1254**	**0.0000**	**232.2800**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix D

Noise Analysis Model Output

AFFORDABLE HOUSING IMPLEMENTATION PROGRAM

EXISTING_W/WO_PROJECT (ALTERNATIVE 3)

#	ROADWAY	SEGMENT	With Project ADT	Without Project ADT	Noise Level Incrase
1	Oso Pkwy	Marguerite Pkwy to Felipe Rd	58,000	57,000	0.08
2	Oso Pkwy	Felipe Rd to Antonio Pkwy	50,000	49,000	0.09
3	Oso Pkwy	Antonio Pkwy to Meandering Trail	48,000	47,000	0.09
4	Oso Pkwy	Meandering Trail to Los Patrones	44,000	43,000	0.10
5	Crown Valley Pkwy	I-5 to Medical Center Rd	69,000	68,000	0.06
6	Crown Valley Pkwy	Medical Center Rd to Marguerite Pkwy	44,000	43,000	0.10
7	Crown Valley Pkwy	Marguerite Pkwy to O'Neill Dr	52,000	51,000	0.08
8	Crown Valley Pkwy	O'Neill Dr to Antonio Pkwy	26,000	25,000	0.17
9	Ortega Hwy	I-5 to Rancho Viejo Rd	47,000	46,000	0.09
10	Ortega Hwy	Rancho Viejo Rd to La Novia Ave	39,000	38,000	0.11
11	Ortega Hwy	La Novia Ave to Sundance Dr	37,000	36,000	0.12
12	Ortega Hwy	Sundance Dr to Reata Rd	35,000	34,000	0.13
13	Ortega Hwy	Reata Rd to La Para Ave	34,000	33,000	0.13
14	Cow Camp Rd	Antonio Pkwy to Chiquita Cyn Rd	42,000	39,000	0.32
15	Cow Camp Rd	Chiquita Cyn Rd to Los Patrones Pkwy	30,000	28,000	0.30
16	Cow Camp Rd	Los Patrones Pkwy to Legado Dr	36,000	34,000	0.25
17	Cow Camp Rd	East of Legado Dr	22,000	21,000	0.20
18	Cow Camp Rd	West of Grandeza Dr	19,000	18,000	0.23
19	Cow Camp Rd	Grandeza Dr to Ortega Hwy	20,000	19,000	0.22
20	Chiquita Cyn Rd	North of Cow Camp Rd	19,000	18,000	0.23
21	Chiquita Cyn Rd	West of Los Patrones Pkwy	18,000	17,000	0.25
22	Chiquita Cyn Rd	East of Los Patrones Pkwy	14,000	13,000	0.32
23	Chiquita Cyn Rd	West of Legado Dr	13,000	12,000	0.35
24	Legado Dr	North of Cow Camp Rd	15,000	14,000	0.30
25	Legado Dr	South of Grandeza Dr	9,000	8,000	0.51
26	Los Patrones Pkwy	Oso Pkwy to Chiquita Cyn Dr	37,000	36,000	0.12
27	Antonio Pkwy	Cow Camp Rd to Sendero Way	27,000	25,000	0.33
28	Antonio Pkwy	Sendero Way to O'Neill Dr	26,000	24,000	0.35
29	Antonio Pkwy	O'Neill Dr to Crown Valley Pkwy	30,000	29,000	0.15
30	I-5	North of Oso Pkwy	348,000	347,000	0.01

Appendix E

Traffic Technical Report

Orange County Affordable Housing Implementation Program Traffic Study

Prepared for:
County of Orange

Prepared by:
Stantec Consulting Services Inc.

January 29, 2016 Final Report

Orange County Affordable Housing Implementation Program Traffic Study

January 29, 2016 Final Report

Prepared for:

County of Orange

Submitted by:

Stantec Consulting Services Inc.
38 Technology Drive, Suite 100
Irvine, California 92618-5312

Stantec

Sign-off Sheet

This report entitled Orange County Affordable Housing Implementation Program Traffic Study was produced by the following individuals:

Prepared by _____
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Executive Summary

This report, prepared by Stantec Consulting Services Inc. (Stantec), presents the findings of a traffic study carried out to determine the potential traffic impacts of the Orange County Affordable Housing Implementation Program.

ES.1 PROJECT DESCRIPTION AND BACKGROUND

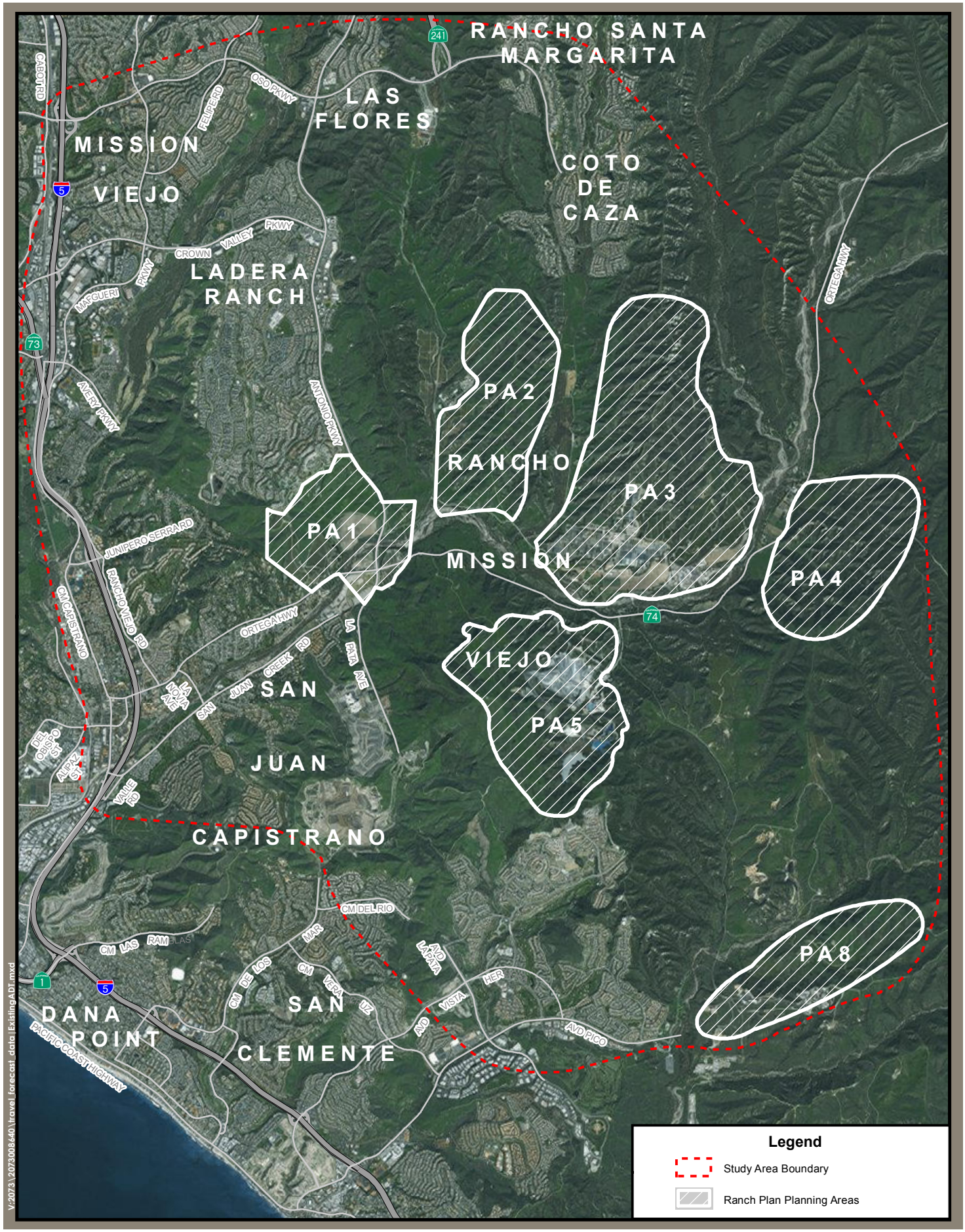
The Affordable Housing Implementation Program would be implemented within Rancho Mission Viejo's Ranch Plan Planned Community located in unincorporated southern Orange County. As part of the overall approval process for the Ranch Plan Planned Community, an Affordable Housing Implementation Agreement (AHIA) was developed that requires RMV to provide the County of Orange with land within the Ranch Plan Planned Community Planning Areas for affordable housing. The County of Orange is responsible for preparing the California Environmental Quality Act (CEQA) documentation for the affordable housing projects and for all costs associated with mitigating impacts associated with the affordable housing units. The CEQA environmental document for the project addresses three development alternatives assuming a range in the number of affordable housing dwelling units based on the amount of acreage developed. This traffic study for the affordable housing project analyzes the potential traffic impacts of the three alternatives at an equal level of detail.

The location of the Ranch Plan Planned Community is illustrated in Figure ES-1 together with the Planning Areas 1, 2, 3, 4, 5 and 8 within the Community. The study area for the affordable housing project traffic impact analysis is also illustrated in the diagram. The Ranch Plan Planned Community is adjacent to the unincorporated communities of Ladera Ranch, Las Flores and Coto de Caza to the north, the City of San Juan Capistrano to the west, the City of San Clemente to the south, Marine Corps Base Camp Pendleton in San Diego County to the southeast and Caspers Wilderness Park and the Cleveland National Forest to the east.

The following three affordable housing alternatives are analyzed in this study:

- Alternative 1 – Private Sector Financing Alternative
  (555 Affordable Housing Units)
- Alternative 2 – Combined Public and Private Sector Financing Alternative
  (740 Affordable Units)
- Alternative 3 – Minimum Private Sector Financing Consistent with the Amended AHIA
  (1,110 Affordable Units)

In each of the three alternatives, affordable housing units are proposed in Ranch Plan Planning Areas 3, 4, 5 and 8. The number of affordable housing dwelling units in Planning Areas 3, 4, 5 and 8 in each of the three project alternatives is summarized in the table below:



Stantec

Figure ES-1

Ranch Plan Planned Community Location and Traffic Analysis Study Area Boundary

Ranch Plan Planning Area	Alternative 1		Alternative 2		Alternative 3	
	Acres	Dwelling Units	Acres	Dwelling Units	Acres	Dwelling Units
3	13.2	330	20.6	515	35.4	885
4	3.0	75	3.0	75	3.0	75
5	3.0	75	3.0	75	3.0	75
8	3.0	75	3.0	75	3.0	75
Total	22.2	555	29.6	740	44.4	1,110

The affordable housing units in Planning Areas 3, 4, 5 and 8 are assumed to be comprised of 75 percent all-age residences and 25 percent age-qualified residences.

As part of an amendment to the AHIA, the County of Orange has approved agreements for affordable housing units that are entitled in PA 1 and PA 2 and that are not a part of the Ranch Plan. Those affordable housing projects, which are assumed to be 107 age-qualified apartments in PA 1 and 112 all- age apartments in PA 2, are also included in each of the three project alternatives. The following table summarizes the trip generation for the affordable housing units in each of the three affordable housing alternatives plus the 219 entitled affordable housing units in PA 1 and PA2.

Land Use/Trip Type	Alternative 1	Alternative 2	Alternative 3
LAND USE			
All-Age Dwelling Units	527 (a)	666 (a)	944 (a)
Age-Qualified Dwelling Units	247 (b)	293 (b)	385 (b)
Total Dwelling Units	774 (c)	959 (c)	1,329 (c)
TRIP GENERATION			
AM Peak Hour Inbound Trips	70	87	120
AM Peak Hour Outbound Trips	247	310	436
AM Peak Hour Total Trips	317	397	556
PM Peak Hour Inbound Trips	246	307	432
PM Peak Hour Outbound Trips	142	178	249
PM Peak Hour Total Trips	388	485	681
Average Daily Trips	4,353	5,435	7,600

(a) Includes 112 entitled affordable housing units in Planning Area 1.
(b) Includes 107 entitled affordable housing units in Planning Area 2
(c) Includes 219 entitled affordable housing units in Planning Areas 1 and 2.

ES.2 TRAFFIC ANALYSIS SCOPE AND METHODOLOGY

The potential traffic impacts of the three affordable housing alternatives were analyzed based on the following three transportation settings:

- Alternative Existing Baseline Conditions
- Long-Range (Year 2035) Cumulative Conditions With No Extension of the SR-241 Toll Road Extension South of Oso Parkway
- Long-Range (Year 2035) Cumulative Conditions With the SR-241 Toll Road Extended South of Oso Parkway to the I-5 Freeway

While existing traffic conditions are summarized in this report, the existing conditions baseline against which the affordable housing project's potential traffic impacts were analyzed (i.e., an existing plus project analysis) includes buildout of the Ranch Plan Planned Community as part of the background conditions. The reason for this approach is because the affordable housing associated with the AHIA is additive to the Ranch Plan and could not be implemented until the Ranch Plan Planned Community is developed. Hence the alternative existing baseline for this traffic study assumes full development of the Ranch Plan Planned Community, including the land uses and roadway infrastructure on the Ranch Plan Planned Community site, as well as South County Roadway Improvement Program (SCRIP) improvements that are currently under construction.

The potential traffic impacts of the affordable housing project were also analyzed based on long-range (year 2035) cumulative traffic conditions. In addition to assuming buildout of the Ranch Plan Planned Community, this setting assumes long-range land use growth projections from the General Plans of the Cities of Mission Viejo, San Juan Capistrano and San Clemente and Orange County Projections 2010 (OCP 2010) year 2035 growth projections for the surrounding areas in south Orange County. This setting also includes local and regional circulation system improvements that are planned by 2035, for example through the capital improvement programs of the local municipalities and the County of Orange and countywide programs such as Orange County Measure M2. The year 2035 scenario does not assume full buildout of the Orange County Master Plan of Arterial Highways (MPAH) circulation plan in south Orange County because a number of facilities shown on that plan are neither planned nor funded by year 2035. For the long-range (year 2035) cumulative setting, traffic conditions were analyzed both with and without an extension of the SR-241 toll road between Oso Parkway to the I-5 Freeway.

For each of the Alternative Existing Baseline and Long-Range (Year 2035) Cumulative settings, the following affordable housing scenarios were analyzed:

- No Project
- With Project Alternative 1 (555 Affordable Units)
- With Project Alternative 2 (740 Affordable Units)
- With Project Alternative 3 (1,110 Affordable Units)

In the no-project scenario, none of the affordable housing dwelling units entitled in PA1 and PA2 and proposed in PA 3, PA 4, PA 5 and PA 8 are assumed on the Ranch Plan site, whereas the three with-project scenarios assume the number of affordable housing units described earlier in Section ES.1.

ES.3 TRAFFIC IMPACT ANALYSIS RESULTS

The results of the Alternative Existing Baseline and Long-Range (Year 2035) Cumulative project impact analyses, which are summarized in detail in Chapter 4.0 of this report, indicate that the

affordable housing alternatives are not forecast to significantly impact any arterial roadways and intersections, freeway/tollway ramps or freeway/tollway mainline segments in the traffic analysis study area. Therefore no transportation/circulation mitigation plan is required for the Orange County Affordable Housing Implementation Program.

1.0 Introduction

This report, prepared by Stantec Consulting Services Inc. (Stantec), presents the findings of a traffic study carried out to determine the potential traffic impacts of the Orange County Affordable Housing Implementation Program.

1.1 PROJECT DESCRIPTION AND BACKGROUND

The Orange County Affordable Housing Implementation Program would be implemented within the Ranch Plan Planned Community located in unincorporated southern Orange County. Rancho Mission Viejo (RMV) received approval for its Ranch Plan Planned Community in 2004. As part of the overall approval process for the Ranch Plan Planned Community, an Affordable Housing Implementation Agreement (AHIA) was developed that requires RMV to provide the County of Orange with land within the Ranch Plan Planned Community Planning Areas for affordable housing. The County of Orange is responsible for preparing the California Environmental Quality Act (CEQA) documentation for the affordable housing projects and for all costs associated with mitigating impacts associated with the affordable housing units. The CEQA environmental document for the project addresses three development alternatives assuming a range in the number of affordable housing dwelling units based on the amount of acreage developed. This traffic study for the affordable housing project analyzes the potential traffic impacts of the three alternatives at an equal level of detail.

The location of the Ranch Plan Planned Community is illustrated in Figure 1-1 together with the Planning Areas 1, 2, 3, 4, 5 and 8 within the Community. The Ranch Plan Planned Community is adjacent to the unincorporated communities of Ladera Ranch, Las Flores and Coto de Caza to the north, the City of San Juan Capistrano to the west, the City of San Clemente to the south, Marine Corps Base Camp Pendleton in San Diego County to the southeast and Caspers Wilderness Park and the Cleveland National Forest to the east.

The following three affordable housing alternatives are analyzed in this study:

- Alternative 1 – Private Sector Financing Alternative
  (555 Affordable Housing Units)
- Alternative 2 – Combined Public and Private Sector Financing Alternative
  (740 Affordable Units)
- Alternative 3 – Minimum Private Sector Financing Consistent with the Amended AHIA
  (1,110 Affordable Units)

In each of the three alternatives, affordable housing units are proposed in Ranch Plan Planning Areas 3, 4, 5 and 8. The number of affordable housing dwelling units in Planning Areas 3, 4, 5 and 8 in each of the three project alternatives is summarized in the table below:

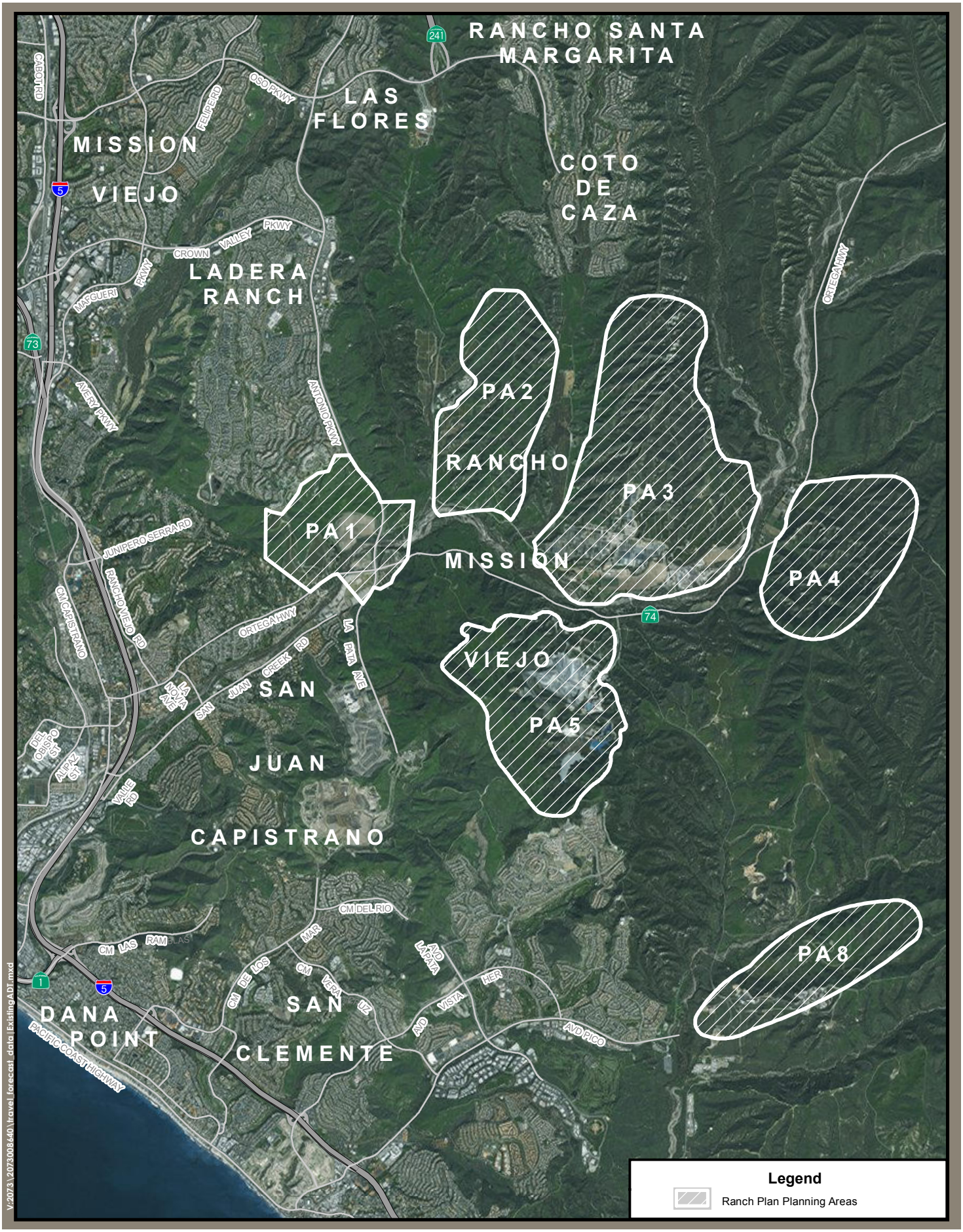


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Figure 1-1

Ranch Plan Planned Community Location

1.2

Ranch Plan Planning Area	Alternative 1		Alternative 2		Alternative 3	
	Acres	Dwelling Units	Acres	Dwelling Units	Acres	Dwelling Units
3	13.2	330	20.6	515	35.4	885
4	3.0	75	3.0	75	3.0	75
5	3.0	75	3.0	75	3.0	75
8	3.0	75	3.0	75	3.0	75
Total	22.2	555	29.6	740	44.4	1,110

The affordable housing units in Planning Areas 3, 4, 5 and 8 are assumed to be comprised of 75 percent all-age residences and 25 percent age-qualified residences.

As part of an amendment to the AHIA, the County of Orange has approved agreements for affordable housing units that are entitled in PA 1 and PA 2 and that are not a part of the Ranch Plan. Those affordable housing projects, which are assumed to be 107 age-qualified apartments in PA 1 and 112 all- age apartments in PA 2, are also included in each of the three project alternatives.

1.2 ANALYSIS SCOPE AND METHODOLOGY

The analysis in this report is based on traffic conditions for the following three scenarios:

- Existing Conditions
- Alternative Existing Baseline Conditions
- Long-Range (Year 2035) Cumulative Conditions

The existing traffic conditions scenario is based on observed traffic counts, and the other two scenarios (Alternative Existing Baseline and Long-Range Cumulative) are the settings against which the potential traffic impacts of the Orange County affordable housing project are measured.

As noted above, the affordable housing project is analyzed based on an "alternative" existing baseline scenario. While existing traffic conditions based on observed traffic counts are summarized in this report, the existing conditions baseline against which the affordable housing project's potential traffic impacts are analyzed (i.e., an existing plus project analysis) includes buildout of the Ranch Plan Planned Community as part of the background conditions. The reason for this approach is because the affordable housing associated with the AHIA is additive to the Ranch Plan and could not be implemented until the Ranch Plan Planned Community is developed. Hence the alternative existing baseline for this traffic study assumes full development of the Ranch Plan Planned Community, including the land uses and roadway infrastructure on the Ranch Plan Planned Community site, as well as South County Roadway Improvement Program (SCRIP) improvements that are currently under construction.

The potential traffic impacts of the affordable housing project are also analyzed based on long-range (year 2035) cumulative traffic conditions. In addition to assuming buildout of the Ranch

Plan Planned Community, this setting assumes long-range land use growth projections from the General Plans of the Cities of Mission Viejo, San Juan Capistrano and San Clemente and Orange County Projections 2010 (OCP 2010) year 2035 growth projections for the surrounding areas in south Orange County. This setting also includes local and regional circulation system improvements that are planned by 2035, for example through the capital improvement programs of the local municipalities and the County of Orange and countywide programs such as Orange County Measure M2. The year 2035 scenario does not assume full buildout of the Orange County Master Plan of Arterial Highways (MPAH) circulation plan in south Orange County because a number of facilities shown on that plan are neither planned nor funded by year 2035. For the long-range (year 2035) cumulative setting, traffic conditions are analyzed both with and without the extension of the SR-241 toll road from Oso Parkway to the I-5 Freeway.

For each of the Alternative Existing Baseline and Long-Range (Year 2035) Cumulative settings, the following affordable housing scenarios are analyzed:

- No Project
- With Project Alternative 1 (555 Affordable Housing Units)
- With Project Alternative 2 (740 Affordable Units)
- With Project Alternative 3 (1,110 Affordable Units)

In the no-project scenario, none of the affordable housing dwelling units entitled in PA1 and PA2 and proposed in PA 3, PA 4, PA 5 and PA 8 are assumed on the Ranch Plan site, whereas the three with-project scenarios assume the number of affordable housing units described earlier in Section 1.1.

1.2.1 Study Area

The study area for the Orange County affordable housing project traffic impact analysis is illustrated in Figure 1-2. In addition to the Ranch Plan Planned Community area in the County of Orange and the nearby unincorporated communities of Ladera Ranch, Las Flores and Coto de Caza, the study area includes portions of the Cities of Mission Viejo, Rancho Santa Margarita, San Juan Capistrano and San Clemente. The limits of the study area were reviewed during the course of this study to verify whether or not significant project impacts occur beyond the study area boundary based on the circulation system performance criteria applied in the study. Based on the findings of the project traffic impact analysis, no expansion of the study area beyond the limits outlined in the diagram was warranted.

1.2.2 Traffic Forecasting Methodology

Traffic forecasts for the study were prepared using the South County Sub-Area Model, Version 3.4 (SCSAM 3.4) in combination with recent traffic projections prepared for the Cities of Mission Viejo, San Juan Capistrano and San Clemente. The SCSAM 3.4 traffic model is derived from the Orange County Transportation Analysis Model, Version 3.4 (OCTAM 3.4), which is maintained by

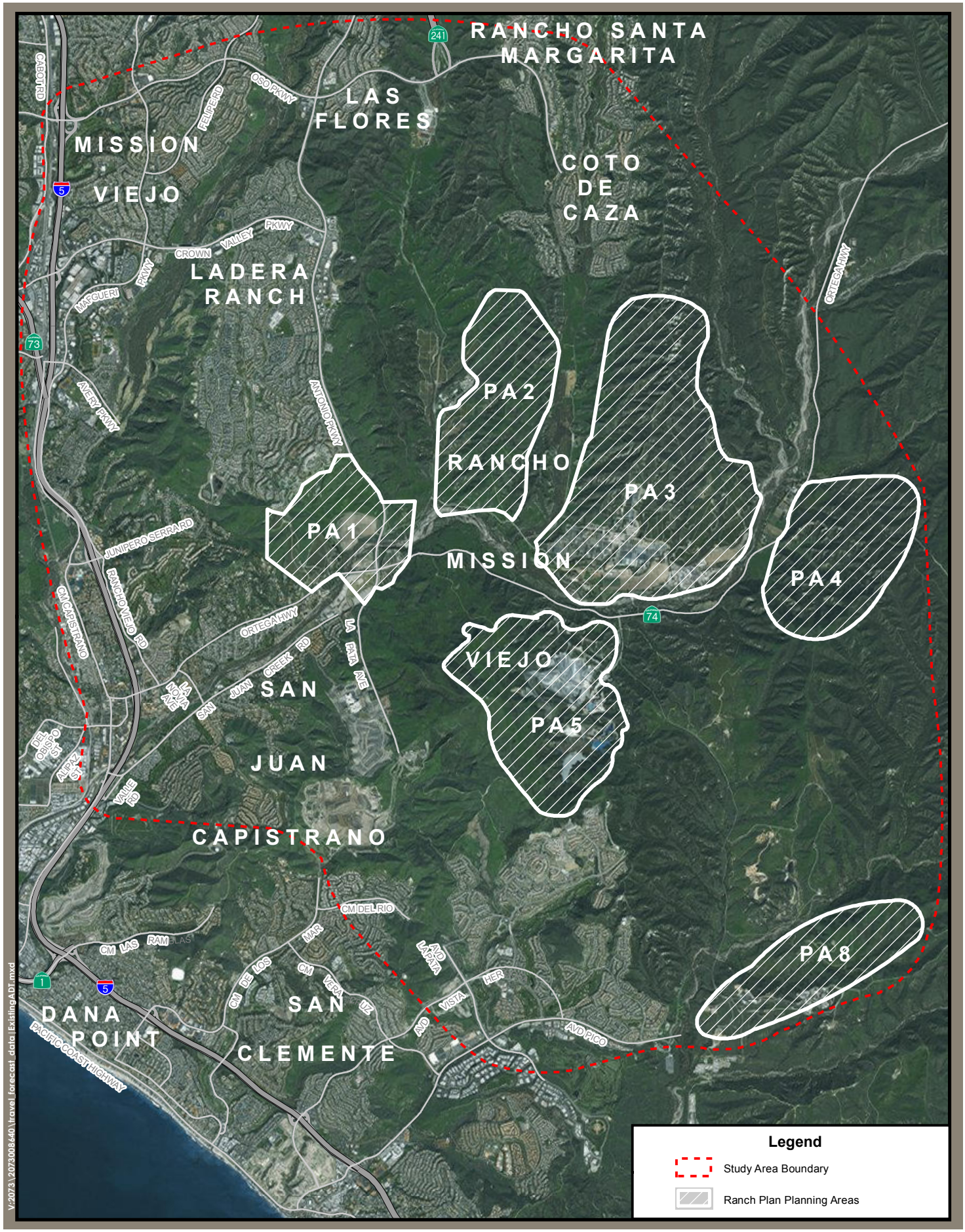

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Figure 1-2

Traffic Analysis Study Area

1.5

the Orange County Transportation Authority (OCTA), and has been developed according to OCTA's Orange County sub-area traffic modeling guidelines. The OCTA has certified the SCSAM traffic model as being consistent with the OCTAM regional model.

The SCSAM traffic model was applied to produce Alternative Existing Baseline traffic forecast data for the circulation system throughout the study area. For Long-Range (Year 2035) Cumulative conditions, the SCSAM traffic model was applied to produce traffic forecast data for roadways and intersections analyzed in the unincorporated County of Orange portion of the traffic analysis study area. For the portions of the study area in the Cities of Mission Viejo, San Juan Capistrano and San Clemente, Long-Range (Year 2035) Cumulative traffic forecasts were prepared using the SCSAM traffic model in combination with recent long-range traffic projections that are available for those Cities. The process utilizes traffic forecasts from General Plan Update EIR traffic studies conducted for the Cities of Mission Viejo and San Clemente in 2013 and updated traffic projections prepared in 2014 for the City of San Juan Capistrano as part of the draft EIR traffic study for the Spieker CCRC Specific Plan.

The approach for preparing Mission Viejo, San Juan Capistrano and San Clemente future traffic forecasts for this study involved first using the SCSAM to model the incremental change in traffic volumes due to each of the project scenarios that were analyzed. Those incremental changes were then applied to the corresponding Mission Viejo, San Juan Capistrano and San Clemente forecasts to develop traffic projections for those Cities that reflect the effects of the project scenarios that were analyzed. Figure 1-2 presented earlier shows the intersections that were analyzed in the study area and also differentiates the intersections according to jurisdiction (i.e., Mission Viejo, San Juan Capistrano, San Clemente and unincorporated County of Orange).

1.2.3 Performance Criteria

In this report, a set of performance criteria is utilized to identify future level of service (LOS) deficiencies on the study area circulation system. Traffic LOS is designated "A" through "F" with LOS "A" representing free flow conditions and LOS "F" representing severe traffic congestion. General LOS descriptions are summarized in Table 1-1 for urban streets and intersections and in Table 1-2 for freeways. Table 1-3 summarizes the volume/capacity (V/C) ranges that correspond to LOS "A" through "F" for arterial roads and freeway segments. The V/C ranges listed for arterial roads are designated in the Orange County Congestion Management Program (CMP) as well as the General Plans for the County of Orange and the Cities of Mission Viejo, San Juan Capistrano and San Clemente. The V/C ranges listed for freeway segments are based on the V/C and LOS relationships specified in the 2010 Highway Capacity Manual (HCM 2010) for basic freeway sections.

The performance criteria applied in the traffic study include components for intersections, freeway/tollway ramps and freeway/tollway mainline segments, and are based on LOS calculation methodologies and performance standards used by the governing agencies in the study area as well as by the OCTA as part of the CMP. The following sub-sections discuss the performance criteria for the various components of the study area circulation system.

Table 1-1 Level of Service Descriptions – Urban Streets and Intersections

LOS	Description
A	LOS A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at the intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.
B	LOS B describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.
C	LOS C describes stable operation. The ability to maneuver and change lanes at midsegment locations may be more restricted than at LOS B. Longer queues at the intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.
D	LOS D indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the intersections. The travel speed is between 40% and 50% of the base free-flow speed.
E	LOS E is characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the intersections. The travel speed is between 30% and 40% of the base free-flow speed.
F	LOS F is characterized by flow at extremely low speed. Congestion is likely occurring at the intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed.
Source: Highway Capacity Manual 2010, Transportation Research Board, National Research Council	

Table 1-2 Level of Service Descriptions – Freeways

LOS	Description
A	LOS A describes free-flow operations. Free-flow speed prevails on the freeway, and vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed.
B	LOS B represents reasonably free-flow operations, and free-flow speed on the freeway is maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.
C	LOS C provides for flow with speeds near the free-flow speed of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in service quality will be significant. Queues may be expected to form behind any significant blockages.
D	LOS D is the level at which speeds begin to decline with increasing flows, with density increasing more quickly. Freedom to maneuver within the traffic stream is seriously limited and drivers experience reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.
E	LOS E describes operation at capacity. Operations on the freeway at this level are highly volatile because there are virtually no usable gaps within the traffic stream, leaving little room to maneuver within the traffic stream. Any disruption of the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown and substantial queuing. The physical and psychological comfort afforded to drivers is poor.
F	LOS F describes breakdown, or unstable flow. Such conditions exist within queues forming behind bottlenecks. Breakdowns occur for a number of reasons; traffic incidents can temporarily reduce the capacity of a short segment, so that the number of vehicles arriving at a point is greater than the number of vehicles that can move through it; points of recurring congestion, such as merge or weaving segments and lane drops, experience very high demand in which the number of vehicles arriving is greater than the number of vehicles that can be discharged. Whenever queues due to a breakdown exist, they have the potential to extend upstream for considerable distances.
Source: Highway Capacity Manual 2010, Transportation Research Board, National Research Council	

Table 1-3 Volume/Capacity Ratio Level of Service Ranges

Level of Service (LOS)	Volume/Capacity (V/C) Ratio Ranges	
	Arterial Roads	Freeway Segments
A	.00 – .60	.00 – .30
B	.61 – .70	.31 – .50
C	.71 – .80	.51 – .71
D	.81 – .90	.72 – .89
E	.91 – 1.00	.90 – 1.00
F	Above 1.00	Above 1.00

Intersections

The intersection criteria involve the use of peak hour intersection capacity utilization (ICU) values. The ICU calculation methodology and associated impact criteria for intersections in the study area are shown in Table 1-4. The ICU ranges that correspond to LOS "A" through "F" are shown in Table 1-5 and are the same as the V/C ranges shown earlier in Table 1-3 for arterial roads. By practice the ICU methodology assumes that intersections are signalized. LOS "E" (ICU not to exceed 1.00) is the performance standard applied in this study for the I-5 ramp intersections at Crown Valley and at Ortega Highway, which are CMP intersections, the Crown Valley Parkway intersections between I-5 and Marguerite Parkway, which have been designated LOS E intersections in the Mission Viejo General Plan, and the Del Obispo Street/Ortega Highway, Camino Capistrano/Del Obispo Street, Camino Capistrano/San Juan Creek Road and Camino Capistrano/I-5 southbound ramp intersections, which have been designated in the City of San Juan Capistrano General Plan as hot spot locations where LOS E is considered satisfactory. LOS "D" (ICU not to exceed .90) is the performance standard for the remaining intersections in the study area.

The City of San Juan Capistrano uses the Highway Capacity Manual (HCM) LOS methodology for signalized intersections in addition to the ICU methodology, and Caltrans uses the HCM LOS methodology for evaluating intersections on the state highway system. Therefore, the San Juan Capistrano and Caltrans intersections in the study area will be analyzed using the HCM 2010 LOS methodology in addition to the ICU methodology. In the HCM 2010 signalized intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. The vehicle delay ranges that correspond to LOS "A" through "F" as specified in the HCM are also summarized in Table 1-5.

Freeway/Tollway Ramps

Similar to the intersection evaluation, the peak hour is the time period standardly used by Caltrans for impact evaluation of freeway/tollway interchange ramps. Accordingly, in this traffic study, levels of service for freeway/tollway ramps are based on AM and PM peak hour V/C ratios. In accordance with comments submitted by Caltrans in response to the Notice of Preparation (NOP) for the Orange County Affordable Housing Implementation Program environmental document, the limits of the traffic analysis study area were reviewed during the course of the study to ensure that the traffic study analyzed all freeway/tollway ramps on the State highway system where the project adds over 100 peak hour trips to a ramp that is not experiencing noticeable delays or where the project adds 50 to 100 peak hour trips to a ramp that is experiencing noticeable delays.

Peak hour capacities for the various ramp configurations that either exist or are anticipated on the freeway/tollway system in the traffic analysis study area are based on information in the Caltrans Highway Design Manual and the Caltrans Ramp Meter Design Manual and have been used for other recent studies in Orange County. The capacities for calculating ramp V/C ratios are summarized in Table 1-6 together with the overall performance criteria and impact

Table 1-4 Intersection Performance Criteria

V/C Calculation Methodology

Level of service based on peak hour intersection capacity utilization (ICU) values calculated using the following assumptions:

Saturation Flow Rate:
1,600 vehicles per hour per lane for City of San Clemente
1,700 vehicles per hour per lane for all other jurisdictions in the study area.

Clearance Interval:
0.00 for City of San Clemente intersections
0.05 for all other jurisdictions in the study area.

Performance Standards

Level of Service E (peak hour ICU less than or equal to 1.00) for Congestion Management Program (CMP) intersections (i.e., the I-5 ramp intersections at Crown Valley Parkway and at Ortega Highway), the Crown Valley Parkway intersections between I-5 and Marguerite Parkway in the City of Mission Viejo and the Del Obispo Street/Ortega Highway, Camino Capistrano/Del Obispo Street, Camino Capistrano/San Juan Creek Road and Camino Capistrano/I-5 southbound ramp intersections in the City of San Juan Capistrano.

Level of Service D (peak hour ICU less than or equal to 0.90) for all other intersections in the traffic analysis study area.

Impact Thresholds

An intersection is considered to be impacted by the project if:

A. The intersection is forecast to operate deficiently (i.e., worse than the performance standard).

AND

B. Compared to the ICU for no-project conditions, the ICU for with-project conditions increases as follows:

- 0.01 or greater at County of Orange, City of Mission Viejo, City of Rancho Santa Margarita and City of San Juan Capistrano intersections.
- Greater than 0.01 at City of San Clemente intersections.
- Greater than 0.03 at CMP intersections.

HCM Methodology

For San Juan Capistrano and Caltrans intersections, the 2010 Highway Capacity Manual (HCM 2010) level of service methodology for signalized intersections is applied in addition to the ICU methodology.

Table 1-5 Intersection Level of Service Ranges (ICU and HCM Delay)

Level of Service (LOS)	Intersection Capacity Utilization (ICU)	Highway Capacity Manual (HCM) Average Delay
A	0.00 – 0.60	0.00 – 10.0 seconds
B	0.61 – 0.70	10.1 – 20.0 seconds
C	0.71 – 0.80	20.1 – 35.0 seconds
D	0.81 – 0.90	35.1 – 55.0 seconds
E	0.91 – 1.00	55.1 – 80.0 seconds
F	Above 1.00	Above 80.0 seconds

Table 1-6 Freeway/Tollway Ramp Performance Criteria

V/C Calculation Methodology

Level of service based on peak hour V/C ratios calculated using the following capacities:

Metered On-Ramps

A maximum capacity of 900 vehicles per hour (vph) for a one-lane metered on-ramp with only one mixed-flow lane at the meter.

A maximum capacity of 1,080 (20 percent greater than 900) vph for a one-lane metered on-ramp with one mixed-flow lane at the meter plus one HOV preferential lane at the meter.

A maximum capacity of 1,500 vph for a one-lane metered on-ramp with two mixed-flow lanes at the meter.

A maximum capacity of 1,800 vph for a two-lane metered on-ramp with two mixed-flow lanes at the meter.

Non-Metered On-Ramps and Off-Ramps

A maximum capacity of 1,500 vph for a one-lane ramp.

A maximum capacity of 2,250 (50 percent greater than 1,500) vph for a two-lane on-ramp that tapers to one merge lane at or beyond the freeway mainline gore point and for a two-lane off-ramp with only one auxiliary lane.

A maximum capacity of 3,000 vph for a two-lane on-ramp that does not taper to one merge lane and for a two-lane off-ramp with two auxiliary lanes.

Performance Standard

Level of Service E (peak hour V/C less than or equal to 1.00)

Impact Thresholds

A freeway/tollway ramp is considered to be impacted by the project if:

A. The ramp is forecast to operate deficiently (i.e., worse than the performance standard).

AND

B. Compared to the ramp V/C for no-project conditions, the ramp V/C for with-project conditions increases as follows:

- 0.01 or greater for ramps at freeway/tollway interchanges in the City of Mission Viejo, City of Rancho Santa Margarita and City of San Juan Capistrano.

Queue Analysis

In addition to the V/C analysis, a ramp queue analysis based on the 2010 Highway Capacity Manual (HCM 2010) is applied for any freeway/tollway on-ramp or off-ramp where the project adds 50 or more trips based on a comparison of no-project versus with-project traffic volumes.

thresholds for freeway/tollway ramps in the study area. LOS "E" (V/C not to exceed 1.00) has been established by Caltrans as the operating standard for freeway/tollway ramps. This standard is also consistent with the LOS "E" standard specified in the Orange County CMP for CMP facilities (the freeway/tollway system in the study area is included in the CMP network).

In addition to the ramp V/C analysis, a ramp queue analysis is carried out for any freeway/tollway on-ramp or off-ramp where the County of Orange affordable housing project adds 50 or more trips based on a comparison of no-project versus with-project traffic volumes. The purpose of the queue analysis is to identify if the with-project traffic volumes on the ramps result in any traffic queues that exceed storage capacities or, in the case of metered on-ramps, to identify the delay to motorists using the on-ramps and the storage necessary to accommodate the queuing at the ramp meter.

Freeway/Tollway Mainline

The impact analysis for freeway/tollway mainline segments is based on peak hour volumes by direction. Capacities for calculating peak hour V/C ratios for freeway/tollway mainline segments are based on information contained in the Caltrans Highway Design Manual and have been verified by Caltrans staff in previous Orange County studies. The capacity assumptions for freeway/tollway mixed-flow and high occupancy vehicle (HOV) lanes are summarized in Table 1-5 together with the overall performance criteria and impact thresholds for freeway/tollway mainline segments in the study area. The LOS "E" (V/C not to exceed 1.00) performance standard listed in Table 1-7 has been established by Caltrans as the operating standard for freeway/tollway mainline segments and is also consistent with the LOS "E" standard specified in the Orange County CMP for CMP facilities (the freeway/tollway system in the study area is included in the CMP roadway network). In accordance with comments submitted by Caltrans in response to the Notice of Preparation (NOP) for the Orange County Affordable Housing Implementation Program environmental document, the limits of the traffic analysis study area were reviewed during the course of the study to ensure that the traffic study analyzes all freeway/tollway mainline segments on the State highway system where the project adds over 100 peak hour trips in one direction to a mainline segment that is not experiencing noticeable delays or where the project adds 50 to 100 peak hour trips in one direction to a mainline segment that is experiencing noticeable delays.

1.3 REFERENCES

1. "Highway Capacity Manual 2010," Transportation Research Board, National Research Council.
2. "2013 Orange County Congestion Management Program," Orange County Transportation Authority, November 2013.
3. "Trip Generation, Ninth Edition," Institute of Transportation Engineers, 2012.

Table 1-7 Freeway/Tollway Mainline Performance Criteria

V/C Calculation Methodology

Level of service based on peak hour V/C ratios calculated using the following capacities:

2,000 vehicles per hour per lane (vphpl) for mixed-flow (general purpose) lanes.

1,600 vphpl for a one-lane buffer-separated high occupancy vehicle (HOV) facility.

1,750 vphpl for a two-lane buffer-separated HOV facility.

Performance Standard

Level of Service E (peak hour V/C less than or equal to 1.00)

Impact Thresholds

A freeway/tollway mainline segment is considered to be impacted by the project if:

A. The mainline segment is forecast to operate deficiently (i.e., worse than the performance standard).

AND

B. Compared to the mainline segment V/C for no-project conditions, the ramp V/C for with-project conditions increases as follows:

- Greater than 0.03 (the impact threshold specified in the Orange County Congestion Management Program).

4. "Mission Viejo General Plan Buildout Circulation System Level of Service Technical Memorandum," Iteris, February 27, 2012.

5. "City of San Clemente General Plan Conditions Level of Service Results," Fehr & Peers, November 2012.

6. "Spieker CCRC Specific Plan Traffic Impact Analysis," LSA, May 2014.

2.0 Project Description

This section of the report describes the traffic characteristics of the Orange County Affordable Housing Implementation Program. Trip generation estimates are summarized for the Ranch Plan Planned Community development plan and for each of the three affordable housing alternatives that are analyzed in this study. Traffic distribution patterns associated with the affordable housing project are also presented. The information discussed here serves as the basis for the project traffic impact analysis that is presented in Chapter 4.0 of this report.

2.1 RANCH PLAN AND AFFORDABLE HOUSING LAND USE AND TRIP GENERATION

As discussed earlier in Section 1.2, the potential traffic impacts of the affordable housing project are analyzed based on traffic forecasts that include buildout of the Ranch Plan Planned Community as part of the background conditions. The reason for this approach is because the affordable housing associated with the Affordable Housing Implementation Agreement (AHIA) is additive to the Ranch Plan and could not be implemented until the Ranch Plan Planned Community is developed.

Table 2-1 summarizes the land use and trip generation associated with buildout of the Ranch Plan Planned Community. The land use and trip generation assumptions for Ranch Plan Planning Areas 1, 2, 3, 4 and 8 are taken from the Area Plan for Ranch Plan Planning Areas 3 and 4 (PA 3 and PA 4), which is the most recent Ranch Plan Area Plan that has been approved. Because an Area Plan has not been prepared for Ranch Plan Planning Area 5 (PA 5), the trip generation listed in Table 1-2 for PA 5 has been calculated as the total trip generation (peak hour and daily) for the Ranch Plan from the original Ranch Plan EIR minus the trip generation shown in Table 1-2 for PA's 1, 2, 3, 4 and 8.

As mentioned at the beginning of this report, the following three affordable housing alternatives are analyzed in this study:

- Alternative 1 – Private Sector Financing Alternative
  (555 Affordable Housing Units)
- Alternative 2 – Combined Public and Private Sector Financing Alternative
  (740 Affordable Units)
- Alternative 3 – Minimum Private Sector Financing Consistent with the Amended AHIA
  (1,110 Affordable Units)

In each of the three alternatives, affordable housing units are proposed in Ranch Plan Planning Areas 3, 4, 5 and 8. The number of affordable housing dwelling units in Planning Areas 3, 4, 5 and 8 in each of the three project alternatives is summarized in the table below:

Table 2-1 Land Use and Trip Generation Summary – Ranch Plan Planned Community at Buildout

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		Inbound	Outbound	Total	Inbound	Outbound	Total	
Planning Area 1 (PA 1)								
All Age Detached Residential	384 DU	73	215	288	246	142	388	3,675
All Age Attached Residential	303 DU	45	148	193	158	91	249	2,457
Age Qualified Detached Residential	116 DU	9	16	25	19	13	32	430
Age Qualified Attached Residential	284 DU	14	23	37	28	17	45	988
Apartments	200 DU	20	82	102	80	44	124	1,330
General Commercial	95 TSF	58	37	95	174	181	355	4,079
Office	30 TSF	41	6	47	8	37	45	330
Park	11 Acres	0	0	0	0	0	0	25
CCRC	480 Units	67	34	101	82	77	159	1,800
Equestrian Facilities	250 Stalls	23	10	33	33	38	71	570
Soccer Complex	6 Fields	4	4	8	86	38	124	428
PA 1 Trip Generation		354	575	929	914	678	1,592	16,112
Planning Area 2 (PA 2)								
All Age Detached Residential	978 DU	186	548	734	626	362	988	9,359
All Age Attached Residential	475 DU	71	233	304	247	143	390	3,852
Age Qualified Detached Residential	721 DU	58	101	159	115	79	194	2,675
Age Qualified Attached Residential	238 DU	12	19	31	24	14	38	828
Apartments	288 DU	29	118	147	115	63	178	1,915
School	1,200 Students	330	264	594	90	96	186	1,746
Urban Activity Center	500 TSF	305	195	500	915	950	1,865	21,470
Specialty Retail	25 TSF	0	0	0	30	38	68	1,108
PA 2 Trip Generation		991	1,478	2,469	2,162	1,745	3,907	42,953
Planning Areas 3 and 4 (PA 3 and PA 4)								
All Age Detached Residential	2,990 DU	568	1,674	2,242	1,914	1,106	3,020	28,614
All Age Attached Residential	2,010 DU	302	985	1,287	1,045	603	1,648	16,301
Age Qualified Detached Residential	2,500 DU	200	350	550	400	275	675	9,275
School	2,600 Students	650	520	1,170	182	208	390	3,354
Neighborhood Commercial	145 TSF	77	49	126	254	276	530	5,817
Business Park	305 TSF	363	64	427	101	284	385	3,794
Urban Activity Center	2,950 TSF	2,006	384	2,390	738	2,036	2,774	26,580
PA 3 and PA 4 Trip Generation		4,166	4,026	8,192	4,634	4,788	9,422	93,735

Table 2-1 Land Use and Trip Generation Summary – Ranch Plan Planned Community at Buildout (continued)

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		Inbound	Outbound	Total	Inbound	Outbound	Total	
Planning Area 5 (PA 5)								
PA 5 Trip Generation		308	569	877	355	382	737	7,079
Planning Area 8 (PA 8)								
All Age Detached Residential	300 DU	38	187	225	178	85	263	2,745
All Age Attached Residential	200 DU	21	110	131	101	46	147	1,536
Age Qualified Detached Residential	600 DU	37	111	148	122	77	199	2,098
Age Qualified Attached Residential	300 DU	18	56	74	61	39	100	1,049
General Commercial	100 TSF	188	89	277	203	250	453	4,549
R&D/Business Park	1,000 TSF	682	157	839	293	736	1,029	9,700
Golf Course	258 Acres	37	12	49	25	47	72	697
Resort Hotel	250 Rooms	61	18	79	38	74	112	1,085
PA 8 Trip Generation		1,082	740	1,822	1,021	1,354	2,375	23,459
Total								
Ranch Plan Planned Community Total Trip Generation		6,901	7,388	14,289	9,086	8,947	18,033	183,338

Abbreviations: ADT – average daily trips
CCRC – continuing care retirement community
DU – dwelling units
TSF – thousand square feet

Ranch Plan Planning Area	Alternative 1		Alternative 2		Alternative 3	
	Acres	Dwelling Units	Acres	Dwelling Units	Acres	Dwelling Units
3	13.2	330	20.6	515	35.4	885
4	3.0	75	3.0	75	3.0	75
5	3.0	75	3.0	75	3.0	75
8	3.0	75	3.0	75	3.0	75
Total	22.2	555	29.6	740	44.4	1,110

The affordable housing units in Planning Areas 3, 4, 5 and 8 are assumed to be comprised of 75 percent all-age residences and 25 percent age-qualified residences.

As part of an amendment to the AHIA, the County of Orange has approved agreements for affordable housing units that are entitled in PA 1 and PA 2 and that are not a part of the Ranch Plan. Those affordable housing projects, which are assumed to be 107 age-qualified apartments in PA 1 and 112 all- age apartments in PA 2, are also included in each of the three project alternatives. Table 2-2 summarizes the trip generation for the affordable housing units in each of the three affordable housing alternatives plus the 219 entitled affordable housing units in PA 1 and PA2.

2.2 PROJECT TRIP DISTRIBUTION

Trip distribution patterns for the affordable housing project land uses were determined based on the South County Sub-Area Model, Version 3.4 (SCSAM 3.4). In accordance with the consistency requirements for traffic modeling in Orange County, the trip distribution patterns applied in the SCSAM 3.4 model are taken directly from the Orange County Transportation Analysis Model (OCTAM 3.4). The trip distribution patterns for the affordable housing project are based on traffic conditions that assume full development of the Ranch Plan Planned Community, including the land uses and roadway infrastructure on the Ranch Plan Planned Community site as well as South County Roadway Improvement Program (SCRIP) improvements that are planned. Figure 2-1 illustrates the project trip distribution pattern for conditions without the SR-241 toll road terminating at Oso Parkway, and Figure 2-2 shows the project trip distribution pattern assuming an extension of the SR-241 toll road to the I-5 Freeway. As indicated in the illustrations, approximately 40 percent of the traffic generated by the affordable housing project is forecast to travel within the Ranch Plan Planned Community site, and the remaining 60 percent of traffic generated by the project is forecast to travel beyond the Ranch Plan Planned Community site. This internal versus external trip distribution pattern is consistent with the internal/external relationship assumed in the 2004 EIR traffic study for the Ranch Plan Planned Community as well as subsequent traffic studies for the Ranch Plan Planned Community site, including the Area Plan studies for Ranch Plan Planning Areas 1, 2, 3 and 4.

Table 2-2 Land Use and Trip Generation Summary – Affordable Housing Alternatives

Ranch Plan Planning Area	Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
			Inbound	Outbound	Total	Inbound	Outbound	Total	
Alternative 1 (555 Proposed Units in PA 3, PA 4, PA 5 and PA 8 and 219 Entitled Units in PA 1 and PA 2)									
1	Age Qualified Apartments	107 DU	7	14	21	15	12	27	368
2	All Age Apartments	112 DU	11	46	57	45	25	70	745
3	Age Qualified Apartments	83 DU	6	11	17	12	9	21	286
3	All Age Apartments	247 DU	25	101	126	99	54	153	1,643
4	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
4	All Age Apartments	56 DU	6	23	29	22	12	34	372
5	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
5	All Age Apartments	56 DU	6	23	29	22	12	34	372
8	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
8	All Age Apartments	56 DU	6	23	29	22	12	34	372
Total		774 DU	70	247	317	246	142	388	4,353
Alternative 2 (740 Proposed Units in PA 3, PA 4, PA 5 and PA 8 and 219 Entitled Units in PA 1 and PA 2)									
1	Age Qualified Apartments	107 DU	7	14	21	15	12	27	368
2	All Age Apartments	112 DU	11	46	57	45	25	70	745
3	Age Qualified Apartments	129 DU	9	17	26	18	14	32	444
3	All Age Apartments	386 DU	39	158	197	154	85	239	2,567
4	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
4	All Age Apartments	56 DU	6	23	29	22	12	34	372
5	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
5	All Age Apartments	56 DU	6	23	29	22	12	34	372
8	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
8	All Age Apartments	56 DU	6	23	29	22	12	34	372
Total		959 DU	87	310	397	307	178	485	5,435

Table 2-2 Land Use and Trip Generation Summary – Affordable Housing Alternatives (continued)

Ranch Plan Planning Area	Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
			Inbound	Outbound	Total	Inbound	Outbound	Total	
Alternative 3 (1,110 Proposed Units in PA 3, PA 4, PA 5 and PA 8 and 219 Entitled Units in PA 1 and PA 2)									
1	Age Qualified Apartments	107 DU	7	14	21	15	12	27	368
2	All Age Apartments	112 DU	11	46	57	45	25	70	745
3	Age Qualified Apartments	221 DU	15	29	44	31	24	55	760
3	All Age Apartments	664 DU	66	272	338	266	146	412	4,416
4	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
4	All Age Apartments	56 DU	6	23	29	22	12	34	372
5	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
5	All Age Apartments	56 DU	6	23	29	22	12	34	372
8	Age Qualified Apartments	19 DU	1	2	3	3	2	5	65
8	All Age Apartments	56 DU	6	23	29	22	12	34	372
Total		1,329 DU	120	436	556	432	249	681	7,600
ITE Trip Generation Rates									
Age Qualified Apartments (a)		DU	.07	.13	.20	.14	.11	.25	3.44
All Age Apartments (b)		DU	.10	.41	.51	.40	.22	.62	6.65

Abbreviations: ADT – average daily trips
DU – dwelling units
ITE – Institute of Transportation Engineers Trip Generation Manual (9th Edition)

(a) Trip rates taken from ITE Category 252 (Senior Adult Housing – Attached)

(b) Trip rates taken from ITE Category 220 (Apartments)

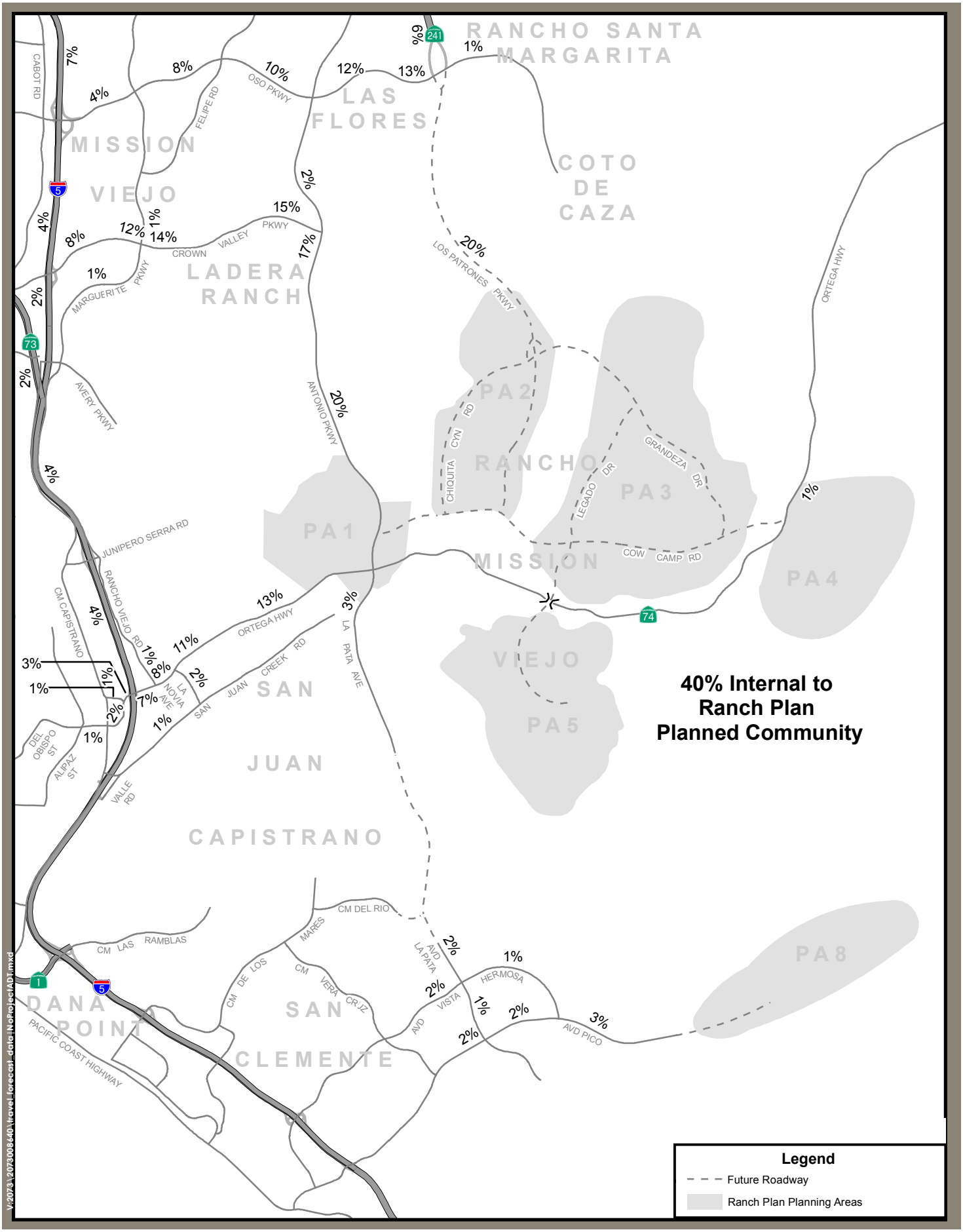

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Figure 2-1

Affordable Housing Project Trip Distribution Pattern Without SR-241 Extension

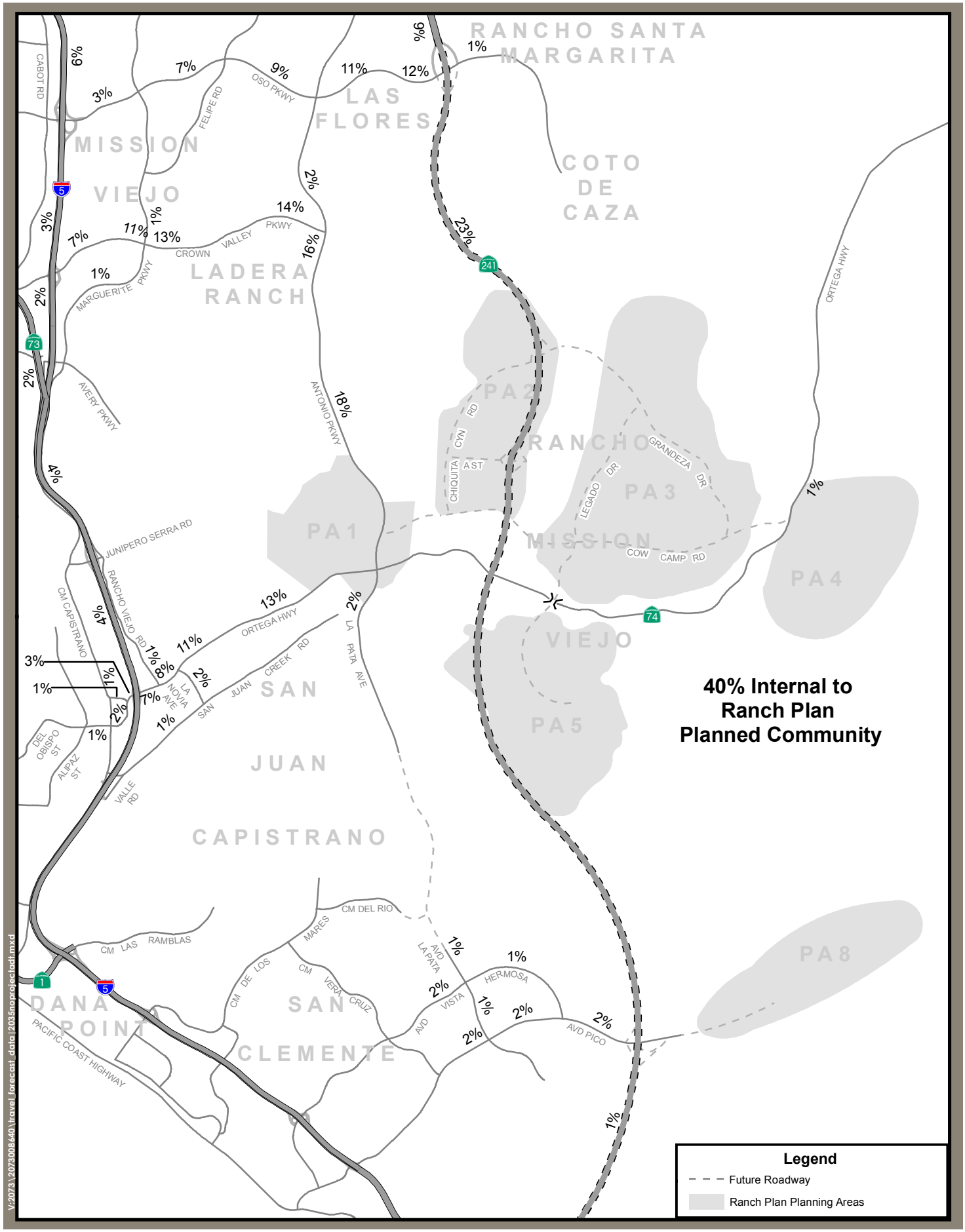

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Figure 2-2

Affordable Housing Project Trip Distribution Pattern With SR-241 Extension

2.8

3.0 Transportation Setting

This chapter describes the transportation setting for the proposed Orange County Affordable Housing Implementation Program. Existing traffic conditions in the traffic analysis study area are summarized, and the background circulation system improvements assumed in the analysis of the potential traffic impacts of the affordable housing project are identified.

3.1 EXISTING CONDITIONS

The existing circulation system in the study area is illustrated in Figure 3-1 together with existing midblock lanes on arterial roadways and the number of existing travel lanes on freeway/tollway mainline segments. Existing traffic conditions in the study area were identified based on observed traffic counts. Current average daily traffic (ADT) counts for midblock arterial roadway segments and AM and PM peak hour turn movement counts at intersection locations in the study area were collected in 2014 and early to mid-2015. Existing ADT and peak hour traffic count data for the I-5 Freeway was taken from traffic counts published by the California Department of Transportation (Caltrans) for the California State Highway system and the Caltrans Performance Management System (PeMS). Because of construction activity at the I-5 interchanges at Oso Parkway and Ortega Highway that was on-going at the time, new traffic counts collected in the vicinity of those interchanges were compared with available counts collected before the construction activity began. Traffic count adjustments were then applied as necessary so that the existing conditions presented in this traffic study reflect existing traffic demand patterns in the absence of any construction activity (i.e., pre-construction conditions). The traffic count adjustments also took into consideration changes in land use development that have occurred since the commencement of the construction activity at the Oso Parkway and Ortega Highway interchanges.

The following sub-sections summarize the existing traffic conditions for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway ramps and freeway/tollway mainline segments.

3.1.1 Average Daily Traffic Volumes

Existing ADT volumes on the arterial roadway system and the freeway/tollway system in the study area are illustrated in Figure 3-2.

3.1.2 Peak Hour Intersection Levels of Service

Figure 3-3 illustrates the intersection locations that were analyzed under existing conditions. Existing intersection capacity utilization (ICU) values were calculated using peak hour traffic count data in combination with the existing lane configuration at each intersection. Existing AM and PM peak hour ICU values are summarized in Table 3-1 (actual turn volumes and ICU calculation worksheets are included in Appendix A). Based on the intersection level of service (LOS) performance criteria outlined in Chapter 1.0, each of the intersection locations analyzed

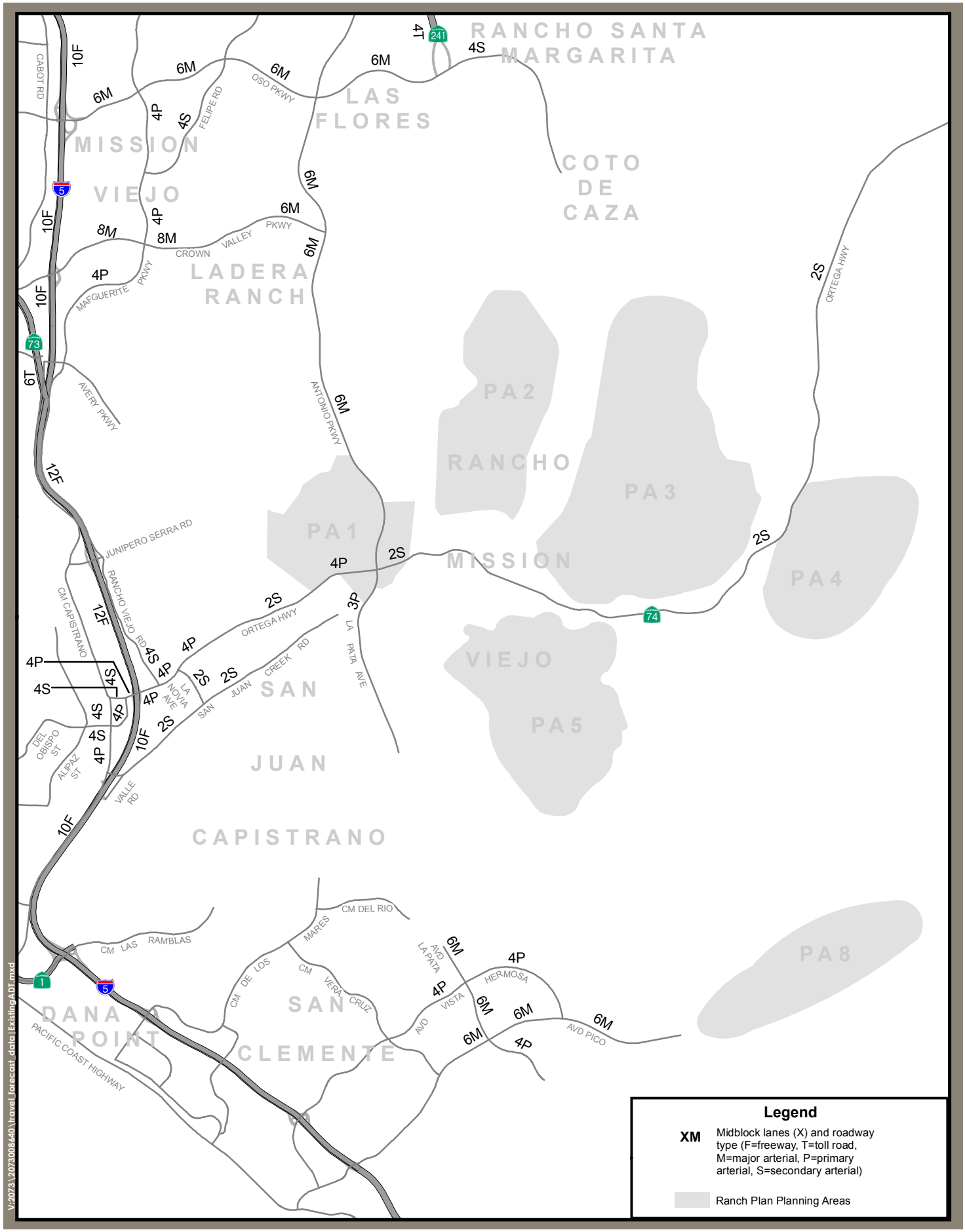

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Figure 3-1

Existing Circulation System

3.2

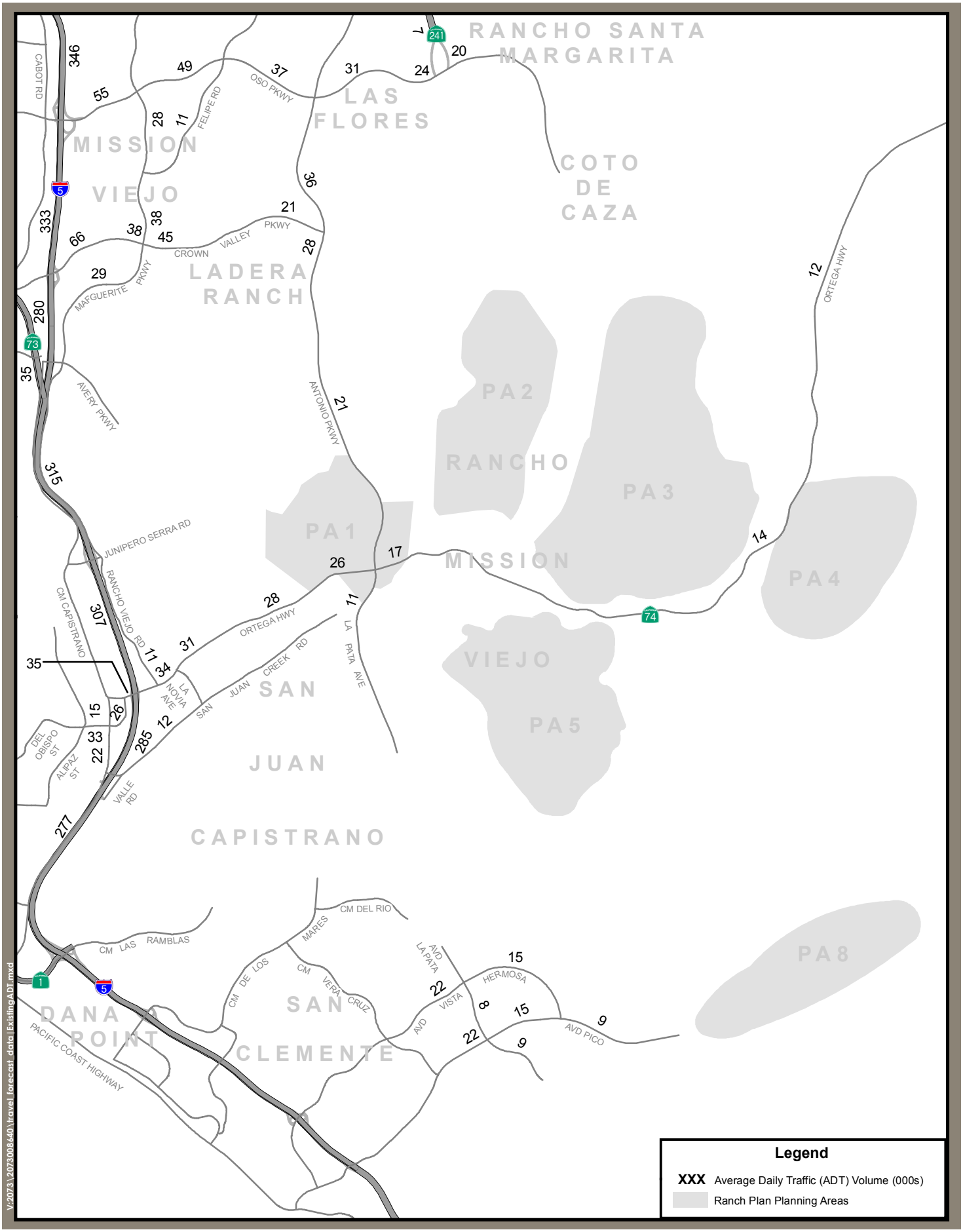

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Figure 3-2

Existing ADT Volumes (000s)

3.3

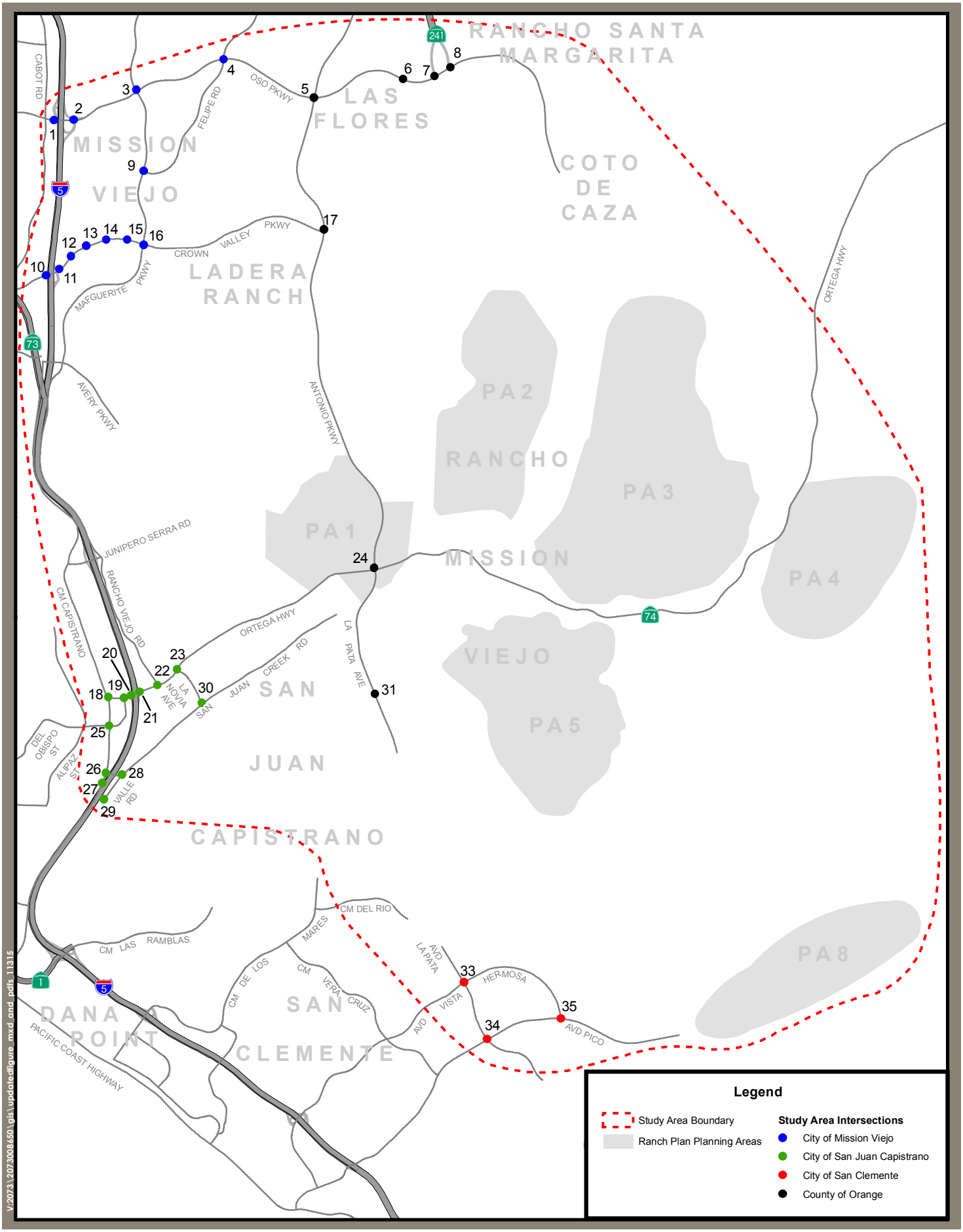

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Figure 3-3

Existing Intersection Location Map

3.4

Table 3-1 Existing Intersection LOS Summary (ICU Methodology)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. I-5 SB Ramps & Oso	Mission Viejo	.52	A	.69	B
2. I-5 NB Ramps & Oso	Mission Viejo	.53	A	.69	B
3. Marguerite & Oso	Mission Viejo	.77	C	.70	B
4. Felipe & Oso	Mission Viejo	.76	C	.73	C
5. Antonio & Oso	County	.63	B	.61	B
6. Tesoro Creek & Oso	County	.54	A	.37	A
7. SR-241 SB Off & Oso Pkwy	County	.34	A	.33	A
8. SR-241 NB On & Oso Pkwy	County	.65	B	.30	A
9. Marguerite & Felipe	Mission Viejo	.64	B	.62	B
10. I-5 SB Ramps & Crown Valley (a)	Mission Viejo	.56	A	.64	B
11. I-5 NB Ramps & Crown Valley (a)	Mission Viejo	.50	A	.50	A
12. Puerta Real & Crown Valley (a)	Mission Viejo	.55	A	.57	A
13. Medical Center & Crown Valley (a)	Mission Viejo	.51	A	.62	B
14. Los Altos & Crown Valley (a)	Mission Viejo	.49	A	.47	A
15. Bellogente & Crown Valley (a)	Mission Viejo	.48	A	.44	A
16. Marguerite & Crown Valley (a)	Mission Viejo	.68	B	.73	C
17. Antonio & Crown Valley	County	.45	A	.50	A
18. Cm Capistrano & Ortega	San Juan Capistrano	.44	A	.48	A
19. Del Obispo & Ortega (a)	San Juan Capistrano	.45	A	.48	A
20. I-5 SB Ramps & Ortega (a)	San Juan Capistrano	.83	D	.88	D
21. I-5 NB Ramps & Ortega (a)	San Juan Capistrano	1.03 (b)	F (b)	.90	D
22. Rancho Viejo & Ortega	San Juan Capistrano	.62	B	.65	B
23. La Novia & Ortega	San Juan Capistrano	.58	A	.60	A
24. Antonio/La Pata & Ortega	San Juan Capistrano	.56	A	.50	A
25. Cm Capistrano & Del Obispo (a)	San Juan Capistrano	.66	B	.64	B
26. Cm Capistrano San Juan Creek (a)	San Juan Capistrano	.37	A	.42	A
27. Cm Capistrano & I-5 SB Ramps (a)	San Juan Capistrano	.46	A	.58	A
28. Valle & San Juan Creek	San Juan Capistrano	.57	A	.60	A
29. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.48	A	.55	A
30. La Novia & San Juan Creek	San Juan Capistrano	.48	A	.41	A
31. La Pata & Vista Montana	County	.64	B	.17	A
33. Avd La Pata & Avd Vista Hermosa	San Clemente	.45	A	.38	A
34. Avd La Pata & Avd Pico	San Clemente	.25	A	.40	A
35. Avd Vista Hermosa & Avd Pico	San Clemente	.19	A	.20	A

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

(b) The deficiency at this location is based on the configuration of the I-5 interchange at Ortega Highway prior to construction of the improvements that were completed at the interchange in late 2015.

Denotes a peak hour deficiency.

in the study area currently operates at an acceptable LOS with the exception of the I-5 northbound ramp intersection at Ortega Highway during the AM peak hour.

City of San Juan Capistrano and Caltrans intersections are analyzed in this study using the Highway Capacity Manual (HCM) LOS calculation methodology for signalized intersections in addition to the ICU methodology. In the HCM intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. Existing AM and PM peak hour HCM-based intersection levels of service are summarized in Table 3-2 (HCM signalized intersection LOS calculation worksheets are included in Appendix B). As the summary table indicates, each of the San Juan Capistrano and Caltrans intersections in the study area currently operates at an acceptable level based on the HCM signalized intersection LOS methodology with the exception of the I-5 northbound ramp intersection at Ortega Highway during the AM peak hour.

As mentioned earlier, the existing traffic volumes applied here are based on conditions without the construction activity at the I-5/Oso Parkway and I-5/Ortega Highway interchanges that was on-going in early 2015 (i.e., the levels of service are based on the configuration of the interchanges prior to the construction activity). It should be noted that construction of the improvements at the I-5/Ortega Highway interchange was completed in late 2015. As will be discussed later in this chapter, the circulation system settings applied in the analysis of the potential traffic impacts of the affordable housing project assume completion of the improvements that are under construction at the Oso Parkway and Ortega Highway interchanges.

3.1.3 Peak Hour Freeway/Tollway Ramp Levels of Service

Existing AM and PM peak hour ramp volumes were derived from the existing intersection volumes at each location in the study area where freeway/tollway ramps intersect the arterial roadway system. The existing peak hour ramp volumes were applied together with the ramp capacities described in Chapter 1.0 to calculate existing AM and PM peak hour ramp volume/capacity (V/C) ratios and corresponding LOSs. The freeway/tollway ramp analysis presented here, which analyzes individual ramp locations, differs from the previous peak hour intersection analysis that included ramp intersections with arterial streets. The ramp analysis involves the peak hour V/C of the ramp itself whereas the intersection analysis involves the ICU value of the ramp intersection with the arterial street. Table 3-3 summarizes existing peak hour V/C ratios for freeway/tollway ramps in the study area. Based on the freeway ramp LOS performance criteria outlined in Chapter 1.0, each of the freeway/tollway ramps in the study area currently operates at an acceptable LOS with the exception of the northbound on-ramp at the I-5/Ortega Highway interchange, which currently operates at LOS F during the AM peak hour. As mentioned in the previous sub-section, the existing traffic volumes applied here are based on the configuration of the I-5/Oso Parkway and I-5/Ortega Highway interchanges prior to the current construction activity at those interchanges, and the improvements that are under construction at the Oso Parkway and Ortega Highway interchanges are assumed to be completed in the analysis of the potential traffic impacts of the affordable housing project.

Table 3-2 Existing Intersection LOS Summary (HCM Signalized Methodology)

Intersection	AM Peak Hour		PM Peak Hour	
	Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
1. I-5 SB Ramps & Oso	10	A	14	B
2. I-5 NB Ramps & Oso	11	B	18	B
7. SR-241 SB Off & Oso Pkwy	12	B	13	B
8. SR-241 NB On & Oso Pkwy	7	A	2	A
10. I-5 SB Ramps & Crown Valley (a)	19	B	29	C
11. I-5 NB Ramps & Crown Valley (a)	11	B	9	A
18. Cm Capistrano & Ortega	12	B	12	B
19. Del Obispo & Ortega (a)	11	B	14	B
20. I-5 SB Ramps & Ortega (a)	35	D	40	D
21. I-5 NB Ramps & Ortega (a)	107 (b)	F (b)	79	E
22. Rancho Viejo & Ortega	24	C	25	C
23. La Novia & Ortega	17	B	24	C
24. Antonio/La Pata & Ortega	31	C	26	C
25. Cm Capistrano & Del Obispo (a)	30	C	34	C
26. Cm Capistrano San Juan Creek (a)	12	B	14	B
27. Cm Capistrano & I-5 SB Ramps (a)	16	B	18	B
28. Valle & San Juan Creek	14	B	14	B
29. Valle & La Novia/I-5 NB Ramps	17	C	33	D
30. La Novia & San Juan Creek	28	C	22	C

Abbreviations: HCM – Highway Capacity Manual
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

(b) The deficiency at this location is based on the configuration of the I-5 interchange at Ortega Highway prior to construction of the improvements that were completed at the interchange in late 2015.

Denotes a peak hour deficiency.

Table 3-3 Existing Freeway/Tollway Ramp LOS Summary

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Oso Parkway	SB Direct On	1	1,500	420	.28	A	450	.30	A
	SB Loop On	1	1,080	700	.65	B	510	.47	A
	NB Direct On	1	1,500	1,230	.82	D	680	.45	A
	NB Loop On	1	1,500	520	.35	A	350	.23	A
	SB Off	2	2,250	870	.39	A	1,560	.69	B
	NB Off	2	2,250	780	.35	A	960	.43	A
I-5 at Crown Valley Parkway	SB On	1	1,500	570	.38	A	800	.53	A
	NB Direct On	1	1,500	1,100	.73	C	1,300	.87	D
	NB Loop On	1	1,500	560	.37	A	640	.43	A
	SB Off	2	2,250	1,930	.86	D	2,120	.94	E
	NB Off	1	1,500	720	.48	A	570	.38	A
I-5 at Ortega Highway	SB On	1	1,500	540	.36	A	540	.36	A
	NB On	1	1,500	1,580	1.05 (a)	F (a)	1,410	.94	E
	SB Off	2	2,250	1,360	.60	A	1,510	.67	B
	NB Off	1	1,500	890	.59	A	650	.43	A
I-5 at Camino Capistrano	SB On	1	1,500	440	.29	A	560	.37	A
	NB On	1	1,500	400	.27	A	340	.23	A
	SB Off	2	2,250	860	.38	A	1,070	.48	A
	NB Off	1	1,500	410	.27	A	520	.35	A
SR-241 at Oso Parkway	NB On	2	3,000	710	.24	A	250	.08	A
	SB Off	2	3,000	240	.08	A	550	.18	A

Abbreviations: LOS – level of service
V/C – volume/capacity ratio
NB – northbound
SB – southbound

(a) The deficiency at this location is based on the configuration of the I-5 interchange at Ortega Highway prior to construction of the improvements that were completed at the interchange in late 2015.

Denotes a peak hour deficiency.

3.1.4 Peak Hour Freeway/Tollway Mainline Levels of Service

Existing peak hour operating conditions for mainline freeway and tollway segments were determined based on 2015 traffic counts from the California Department of Transportation (Caltrans) Performance Management System (PeMS). The existing AM and PM peak hour freeway/tollway mainline counts were applied together with the capacities described in Chapter 1.0 for mixed-flow (general purpose) lanes and high-occupancy vehicle (HOV) lanes to calculate existing peak hour V/C ratios, by direction, for freeway/tollway mainline segments in the study area.

When evaluating existing freeway conditions (i.e., based on traffic count data), the V/C and LOS criteria are applicable only in situations where the observed traffic volume occurs in stable flow. When the peak hour V/C ratio on a freeway mainline segment nears 1.0, unstable conditions can occur which may result in a breakdown in traffic flow. This breakdown in flow causes a reduction in capacity (vehicle speeds drop below the speed at which maximum capacity is available), and hence the V/C increases, causing a further reduction in speed. The result is stop-and-go conditions. At the same time, the reduction in capacity and increase in V/C causes queue build-up and the stop-and-go conditions can extend for a considerable distance upstream of the problem freeway segment. Furthermore, this occurrence, and its severity (i.e., length of queue), can vary from day to day even when day-to-day fluctuations in traffic volumes are relatively small. For these reasons, the V/C LOS is not always a true indication of the actual operating LOS on a freeway segment, particularly when a high V/C ratio on a given segment adversely affects upstream segments because of queue build-up. The upstream segment may have a relatively low V/C and thereby imply satisfactory operating conditions, but stop-and-go conditions extending back to this segment would cause it to actually be operating under congested conditions.

Table 3-4 summarizes existing peak hour V/C ratios and levels of service for freeway/tollway mainline segments in the study area. The existing peak hour freeway/tollway mainline LOS analysis based on V/C ratios indicates that each of the freeway/tollway mainline segments in the study area currently operates at an acceptable LOS based on the freeway/tollway mainline LOS performance criteria outlined in Chapter 1.0.

The LOS results based on V/C ratios indicate measures of demand, not current operating conditions, and are used as a basis for future mainline segment analysis in this report. Note that future traffic volumes presented in this report represent “demand” and no attempt is made to estimate operating conditions such as discussed here (i.e., only the V/C LOS based on the future demand traffic volume is reported).

Table 3-4 Existing Freeway/Tollway Mainline LOS Summary

Location	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Oso Parkway	Northbound	4+1H	9,600	8,220	.86	D	7,630	.79	D
	Southbound	4+1H	9,600	6,660	.69	C	8,510	.89	D
I-5 north of Crown Valley Parkway	Northbound	4+1H	9,600	7,250	.76	D	7,560	.79	D
	Southbound	4+1H	9,600	6,910	.72	D	7,910	.82	D
I-5 south of Crown Valley Parkway	Northbound	4+1H	9,600	6,070	.63	C	6,060	.63	C
	Southbound	4+1H	9,600	5,510	.57	C	6,430	.67	C
I-5 north of Junipero Serra Road	Northbound	5+1H	11,600	9,280	.80	D	7,730	.67	C
	Southbound	5+1H	11,600	7,070	.61	C	9,220	.79	D
I-5 north of Ortega Highway	Northbound	5+1H	11,600	8,920	.77	D	7,160	.62	C
	Southbound	5+1H	11,600	6,480	.56	C	8,680	.75	D
I-5 south of Ortega Highway	Northbound	4+1H	9,600	8,230	.86	D	6,400	.67	C
	Southbound	4+1H	9,600	5,660	.59	C	7,710	.80	D
I-5 south of Camino Capistrano	Northbound	4+1H	9,600	8,240	.86	D	6,580	.69	C
	Southbound	5	10,000	5,240	.52	C	7,200	.72	D
SR-73 north of I-5	Northbound	3	6,000	2,810	.47	B	1,750	.29	A
	Southbound	3	6,000	1,380	.23	A	2,820	.47	B
SR-241 north of Oso Parkway	Northbound	2	4,000	710	.18	A	250	.06	A
	Southbound	2	4,000	240	.06	A	550	.14	A

Abbreviations: H – high-occupancy vehicle lane
LOS – level of service
V/C – volume/capacity ratio

3.2 PLANNED CIRCULATION SYSTEM

Table 3-5 lists the roadway improvements on the Ranch Plan Planned Community site and in the vicinity of Rancho Mission Viejo that are assumed in the alternative existing baseline setting and the year 2035 cumulative settings with and without the extension of the SR-241 toll road from Oso Parkway to the I-5 Freeway. Included in the table are the projected completion dates for each of the improvements. The planned circulation system assumed in the traffic analysis study area is illustrated in Figure 3-4 for the alternative existing baseline setting, in Figure 3-5 for the year 2035 setting without the extension of the SR-241 toll road and in Figure 3-6 for the year 2035 setting with the extension of the SR-241 toll road.

All of the scenarios assume completion of the Ranch Plan Planned Community on-site circulation plan, which includes Cow Camp Road, Chiquita Canyon Drive (formerly "A" Street), Legado Drive (formerly "CC" Street) and Grandeza Drive (formerly "K" Street). On the Orange County Master Plan of Arterial Highways (MPAH), Grandeza Drive between Los Patrones Parkway and Cow Camp Road is designated as a four-lane (two lanes in each direction) secondary arterial and Cow Camp Road between Grandeza Drive and Ortega Highway is designated as a four-lane (two lanes in each direction) primary arterial. It should be noted that the current design of these two roadways includes the option to construct the segment of Grandeza Drive across Gobernadora Canyon (i.e., between Los Patrones Parkway and Legado Drive) and the segment of Cow Camp Road across San Juan Creek (i.e., between Grandeza Drive and Ortega Highway) as two-lane (one lane in each direction) roadways although the MPAH has not yet been amended to designate these segments as two-lane roadways.

All of the scenarios also assume completion of the reconstruction of the I-5/Ortega Highway interchange and the extension of La Pata Avenue, both of which are currently under construction. Los Patrones Parkway (formerly F Street), which provides access to the RMV site from Oso Parkway at the SR-241 toll road, is assumed in the alternative existing baseline setting and in the 2035 cumulative setting without the extension of the SR-241 toll road south of Oso Parkway. Two configurations of the Oso Parkway interchange at SR-241/Los Patrones Parkway are analyzed in this study. In one configuration the SR-241 toll road terminates at Oso Parkway and Los Patrones Parkway originates at Oso Parkway with no direct connection between the SR-241 mainline travel lanes and Los Patrones Parkway. The other configuration assumes construction of an Oso Parkway bridge and a direct connection of the SR-241 mainline to Los Patrones Parkway. The extension of the SR-241 toll road from Oso Parkway to the I-5 Freeway is assumed in the 2035 cumulative setting with the SR-241 toll road extension.

Improvements that are planned by 2035 for Ortega Highway in the City of San Juan Capistrano, the Antonio Parkway/Oso Parkway and Antonio Parkway/Crown Valley Parkway intersections in the County of Orange, the Felipe Road/Oso Parkway intersection in the City of Mission Viejo and the Rancho Viejo Road/Ortega Highway and La Novia Avenue/Ortega Highway intersections in the City of San Juan Capistrano are assumed in the 2035 cumulative settings but not in the alternative existing baseline setting.

Table 3-5 Background Circulation System Improvements

Location	Improvements	Status	Traffic Analysis Scenario	Projected Completion
County of Orange				
Antonio Parkway/ Crown Valley Parkway	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
Antonio Parkway/ Oso Parkway	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
Chiquita Canyon Road	New arterial roadway from Cow Camp Road to Los Patrones Parkway	Constructed with buildout of the Ranch Plan	Alternative Existing Baseline and 2035 Cumulative	2017
Cow Camp Road	New arterial roadway from Antonio Parkway to Los Patrones Parkway	Constructed with buildout of the Ranch Plan	Alternative Existing Baseline and 2035 Cumulative	2015
Cow Camp Road	New arterial roadway from Los Patrones Parkway to Ortega Highway	Constructed with buildout of the Ranch Plan	Alternative Existing Baseline and 2035 Cumulative	2020
Grandeza Drive	New arterial roadway from Los Patrones Parkway to Cow Camp Road	Constructed with buildout of the Ranch Plan	Alternative Existing Baseline and 2035 Cumulative	2035
La Pata Avenue	Roadway extension to San Clemente (gap closure)	Under construction	Alternative Existing Baseline and 2035 Cumulative	2016
Legado Drive	New arterial from Grandeza Drive to south of Ortega Highway(Ranch Plan Planning Area 5 access)	Constructed with buildout of the Ranch Plan	Alternative Existing Baseline and 2035 Cumulative	2035
Los Patrones Parkway	New arterial roadway from Oso Parkway to Cow Camp Road (a)	Constructed with buildout of the Ranch Plan	Alternative Existing Baseline and 2035 Cumulative Without SR-241 Toll Road Extension	2019
City of Mission Viejo				
Felipe Road/ Oso Parkway	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
City of San Juan Capistrano				
I-5/Ortega Highway Interchange	Interchange reconstruction	Under construction	Alternative Existing Baseline and 2035 Cumulative	2015
La Novia Avenue/ Ortega Highway	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035

Table 3-5 Background Circulation System Improvements (continued)

Location	Improvements	Status	Traffic Analysis Scenario	Projected Completion
City of San Juan Capistrano (continued)				
Ortega Highway	SCRIP context sensitive roadway improvements	Future improvement	2035 Cumulative	2035
Rancho Viejo Road/ Ortega Highway	SCRIP intersection improvements	Future improvement	2035 Cumulative	2035
Orange County Transportation Authority (OCTA) Measure M2 Program				
I-5 Freeway	Mainline improvements from La Paz Road to SR-73	Under Design	2035 Cumulative	2022
I-5 Freeway	High occupancy vehicle (HOV) lane construction from San Juan Creek Road to Avenida Pico	Under Construction	2035 Cumulative	2016
Transportation Corridor Agencies (TCA)				
SR-241 Toll Road	Extension of the toll road from Oso Parkway to the I-5 Freeway	Future improvement	2035 Cumulative With SR-241 Toll Road Extension	2035

Abbreviations: SCRIP – South County Roadway Improvement Program

(a) Two configurations of the Oso Parkway interchange at SR-241/Los Patrones Parkway are analyzed in this study. In one configuration the SR-241 toll road terminates at Oso Parkway and Los Patrones Parkway originates at Oso Parkway with no direct connection between the SR-241 mainline travel lanes and Los Patrones Parkway. The other configuration assumes construction of an Oso Parkway bridge and a direct connection of the SR-241 mainline to Los Patrones Parkway.

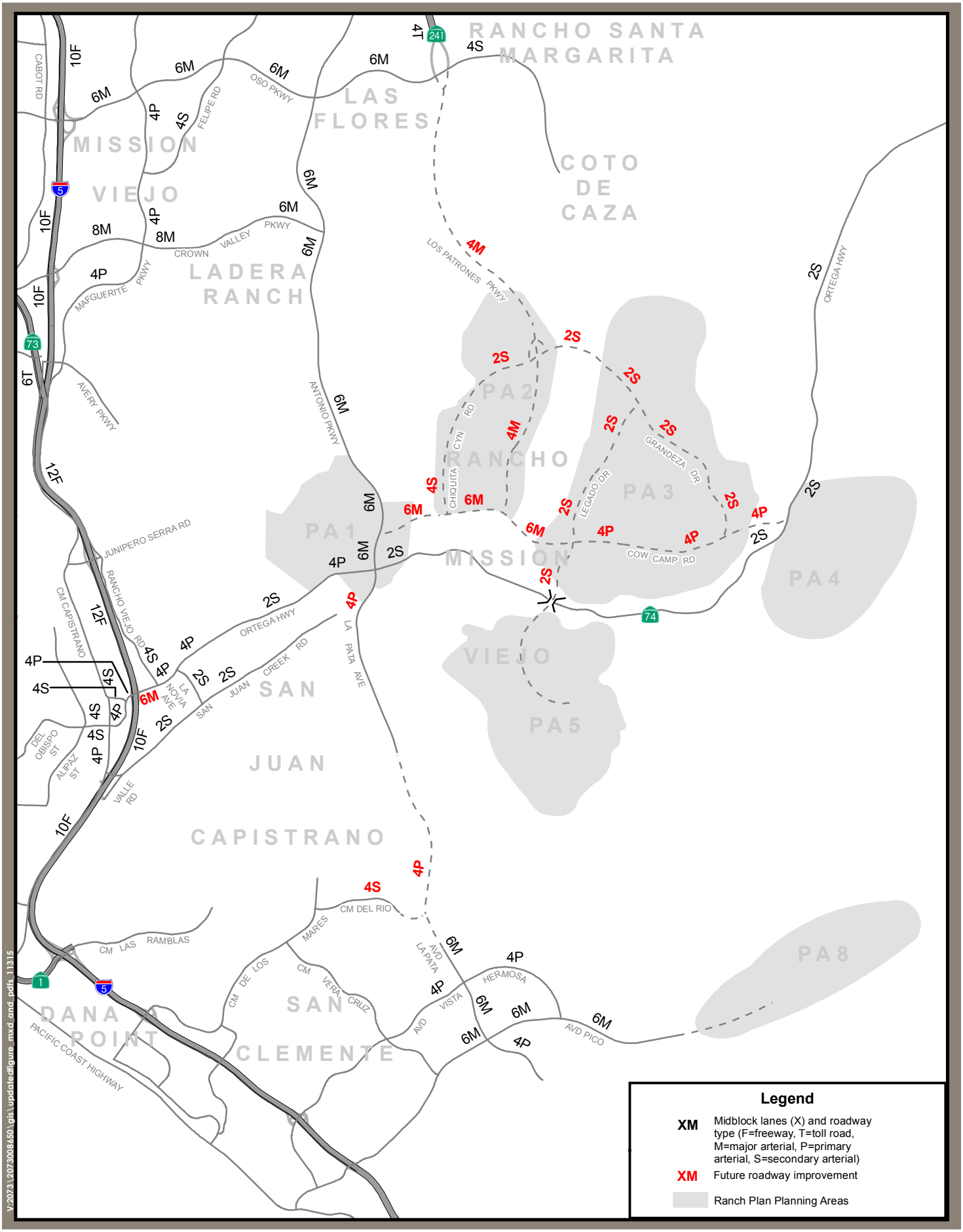

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Figure 3-4

Alternative Existing Baseline Circulation System

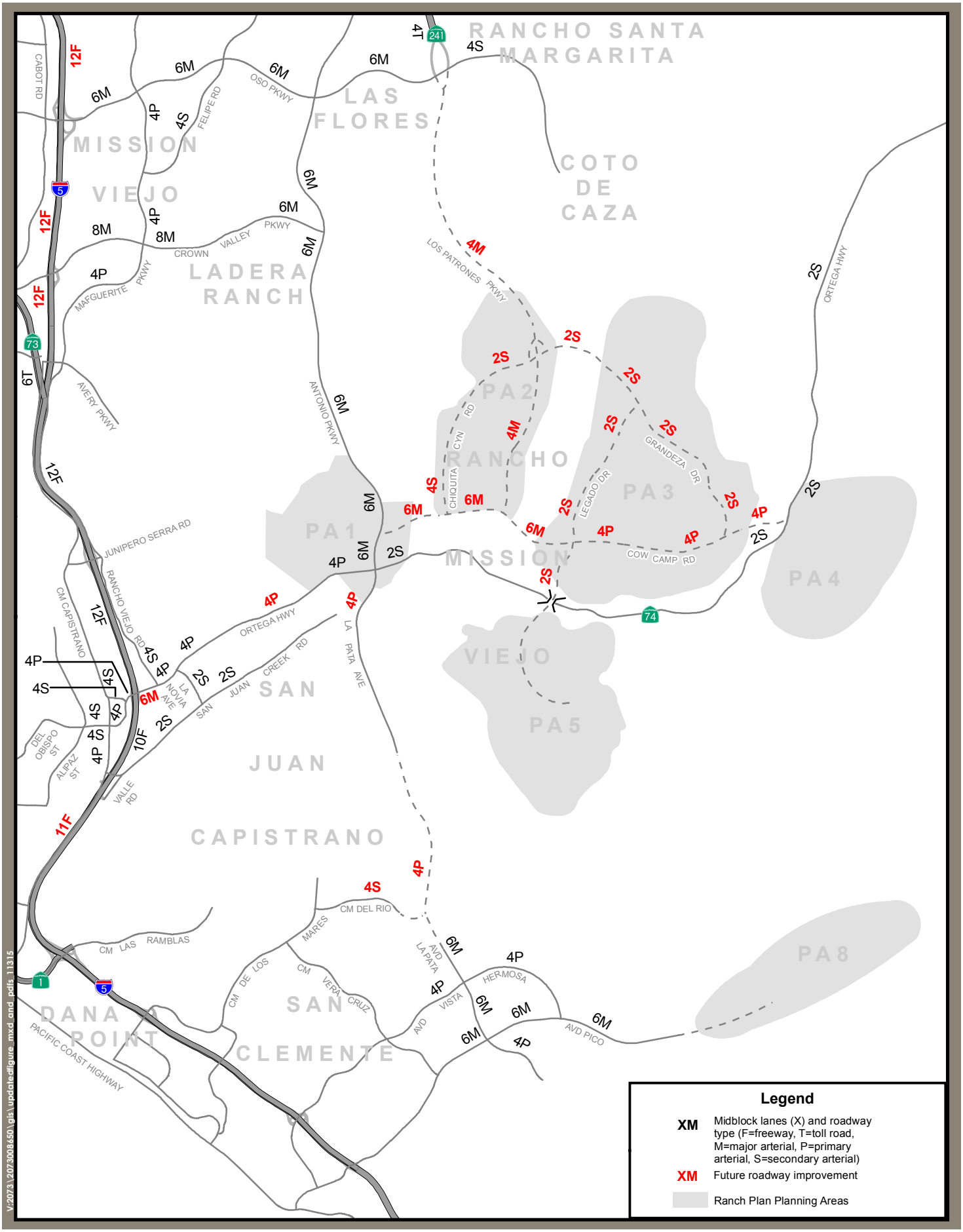

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Figure 3-5

2035 Circulation System Without SR-241 Extension

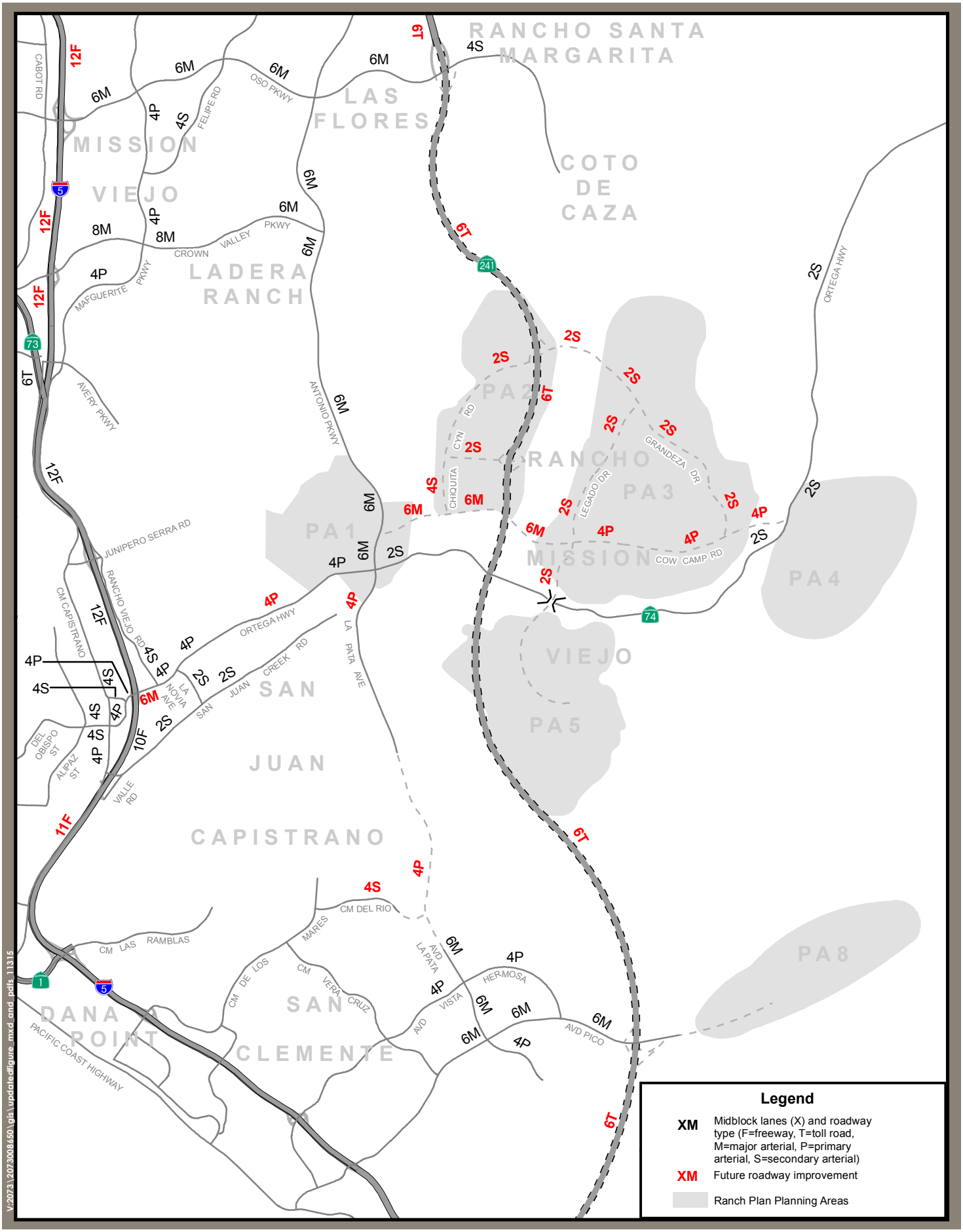

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Figure 3-6

2035 Circulation System With SR-241 Extension

4.0 Traffic Impact Analysis

This chapter analyzes the traffic impacts of the Orange County Affordable Housing Implementation Program. The potential traffic impacts of the project were evaluated based on the following three transportation settings:

- Alternative Existing Baseline
- Long-Range (Year 2035) Cumulative Without the SR-241 Toll Road Extension
- Long-Range (Year 2035) Cumulative With the SR-241 Toll Road Extension

The following affordable housing scenarios were analyzed for each of the transportation settings:

- No Project
- With Project Alternative 1
- With Project Alternative 2
- With Project Alternative 3

In the no project scenario, no affordable housing dwelling units are assumed on the Ranch Plan Planned Community site, whereas the three with-project scenarios assume the number of affordable housing units described earlier in Chapter 2.0. The following sections summarize the results of the analysis conducted for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway ramps and freeway/tollway mainline segments.

4.1 AVERAGE DAILY TRAFFIC VOLUMES

Average daily traffic (ADT) volumes on the study area circulation system are illustrated in Figures 4-1 through 4-4 for the four analysis scenarios (No Project, With Project Alternative 1, With Project Alternative 2 and With Project Alternative 3) based on the alternative existing baseline setting, in Figures 4-5 through 4-8 based on the 2035 cumulative setting without the SR-241 extension and in Figures 4-9 through 4-12 based on the 2035 cumulative setting with the SR-241 extension.

4.2 PEAK HOUR INTERSECTION LEVELS OF SERVICE

The intersection locations that were analyzed based on the alternative existing baseline setting and the 2035 cumulative setting without the SR-241 extension are illustrated in Figure 4-13, and the intersection locations that were analyzed based on the 2035 cumulative setting with the SR-241 extension are illustrated in Figure 4-14. AM and PM peak hour intersection capacity utilization (ICU) values for the four analysis scenarios (No Project, With Project Alternative 1, With Project Alternative 2 and With Project Alternative 3) are summarized in Table 4-1 for the alternative

existing baseline setting, in Table 4-2 for the 2035 cumulative setting without the SR-241 extension and in Table 4-3 for the 2035 cumulative setting with the SR-241 extension (actual turn volumes and ICU calculation worksheets are included in Appendix A). Based on the peak hour intersection performance criteria discussed in Chapter 1.0, all of the intersection locations analyzed in the study area are forecast to operate at acceptable levels of service in each of the transportation settings that were studied with the exception of the City of San Juan Capistrano Valle Road/San Juan Creek Road intersection during the PM peak hour in the 2035 cumulative setting without the SR-241 extension. Based on the peak hour intersection impact thresholds discussed in Chapter 1.0, the deficient intersection is not significantly impacted by the proposed project (i.e., the affordable housing project alternatives do not adversely impact this deficient intersection and therefore the affordable housing project is not required to mitigate the deficiency). The South County Roadway Improvement Program (SCRIP) includes improvements at the Valle Road/San Juan Creek Road intersection that are partially funded through the SCRIP on a fair share basis. The SCRIP requirement at this intersection has been satisfied with recent improvements that have been implemented at the San Juan Creek Road/I-5 interchange through the City of San Juan Capistrano's Nexus program.

City of San Juan Capistrano and Caltrans intersections are analyzed in this study using the Highway Capacity Manual (HCM) LOS calculation methodology for signalized intersections in addition to the ICU methodology. In the HCM intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. AM and PM peak hour HCM-based intersection levels of service for the four analysis scenarios (No Project, With Project Alternative 1, With Project Alternative 2 and With Project Alternative 3) are summarized in Table 4-4 for the alternative existing baseline setting, in Table 4-5 for the 2035 cumulative setting without the SR-241 extension and in Table 4-6 for the 2035 cumulative setting with the SR-241 extension (HCM signalized intersection LOS calculation worksheets are included in Appendix B). As the summary tables indicate, all of the San Juan Capistrano and Caltrans intersections analyzed in the study area are forecast to operate at acceptable levels of service in each of the transportation settings that were studied.

4.3 PEAK HOUR FREEWAY/TOLLWAY RAMP LEVELS OF SERVICE

AM and PM peak hour freeway/tollway ramp volumes and volume/capacity (V/C) ratios for the four analysis scenarios (No Project, With Project Alternative 1, With Project Alternative 2 and With Project Alternative 3) are summarized in Table 4-7 for the alternative existing baseline setting, in Table 4-8 for the 2035 cumulative setting without the SR-241 extension and in Table 4-9 for the 2035 cumulative setting with the SR-241 extension. Based on the peak hour freeway/tollway ramp performance criteria discussed in Chapter 1.0, all of the ramps analyzed in the study area are forecast to operate at acceptable levels of service in each of the transportation settings that were studied with the exception of the northbound direct on-ramp at the I-5/Crown Valley Parkway interchange during the PM peak hour in the alternative existing baseline setting and the 2035 cumulative setting with the SR-241 extension. Based on the peak hour freeway/ tollway ramp impact thresholds discussed in Chapter 1.0, the deficient ramp is not significantly

impacted by the proposed project (i.e., the affordable housing project alternatives do not adversely impact any of the freeway/tollway ramps in the study area).

The affordable housing project does not add 50 or more peak hour trips at any of the freeway/tollway ramps analyzed in the study area, and therefore no ramp queuing analysis was carried out as part of this study.

4.4 PEAK HOUR FREEWAY/TOLLWAY MAINLINE LEVELS OF SERVICE

AM and PM peak hour freeway/tollway mainline volumes and volume/capacity (V/C) ratios for the four analysis scenarios (No Project, With Project Alternative 1, With Project Alternative 2 and With Project Alternative 3) are summarized in Table 4-10 for the alternative existing baseline setting, in Table 4-11 for the 2035 cumulative setting without the SR-241 extension and in Table 4-12 for the 2035 cumulative setting with the SR-241 extension. Based on the peak hour freeway/ tollway mainline performance criteria discussed in Chapter 1.0, all of the mainline segments analyzed in the study area are forecast to operate at acceptable levels of service in each of the transportation settings that were studied with the exception of northbound I-5 between the Camino Capistrano and Ortega Highway interchanges during the AM peak hour in the 2035 cumulative setting without the SR-241 extension. Based on the peak hour freeway/tollway mainline impact thresholds discussed in Chapter 1.0, the deficient mainline segment is not significantly impacted by the proposed project (i.e., the affordable housing project alternatives do not adversely impact any of the freeway/tollway mainline segments in the study area).

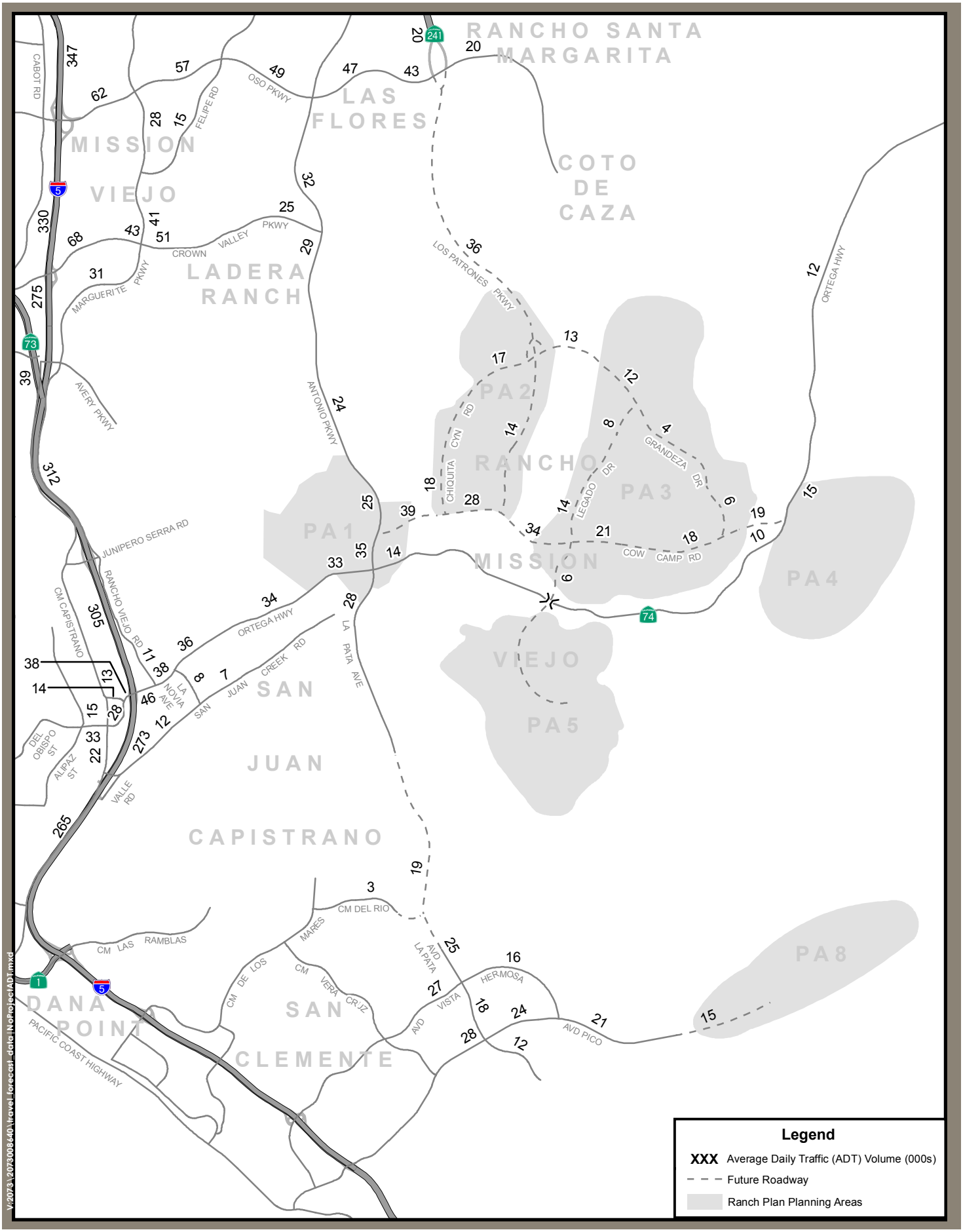

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Figure 4-1

Alternative Existing Baseline ADT Volumes (000s) - No Project

4.4

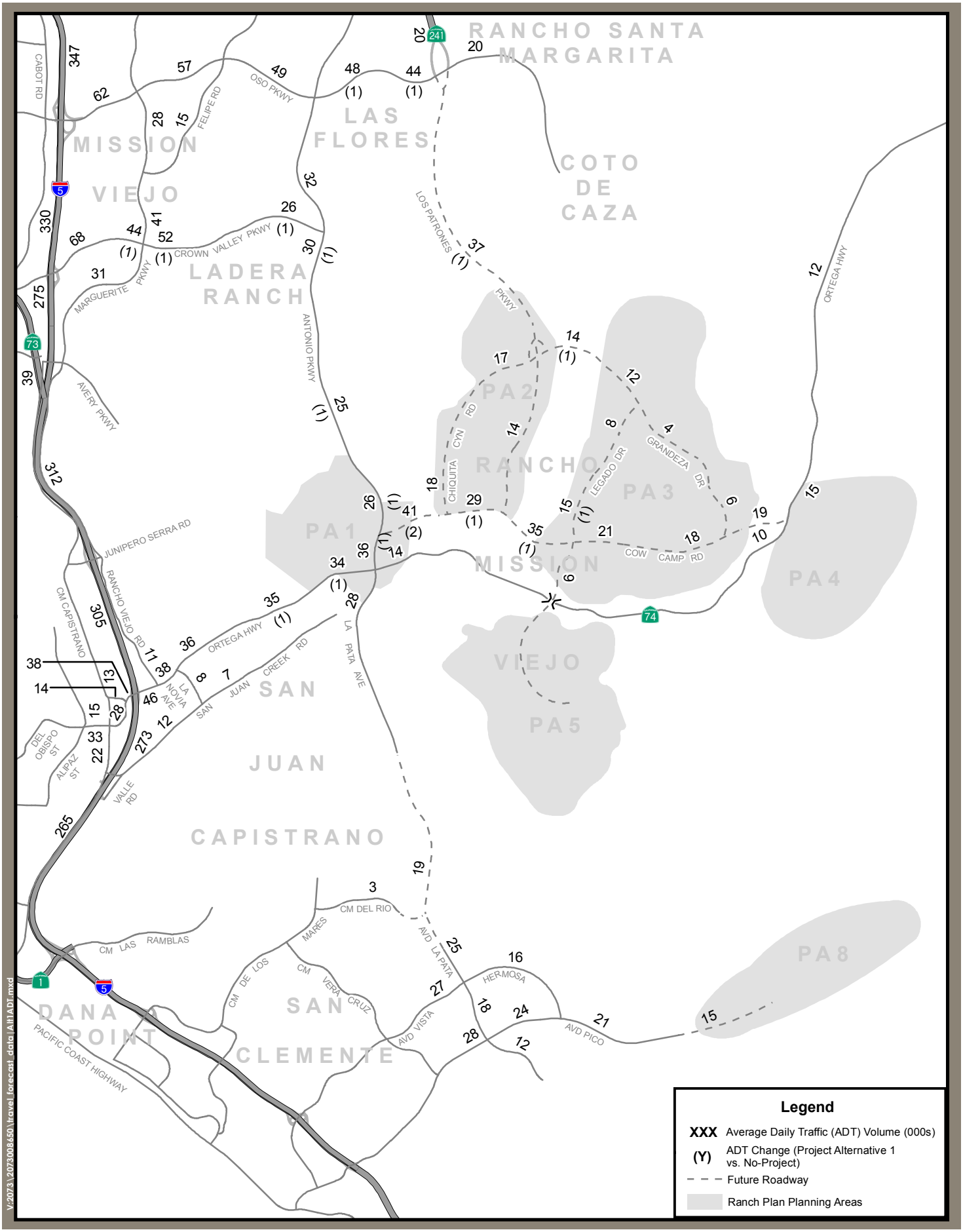

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Figure 4-2

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 1

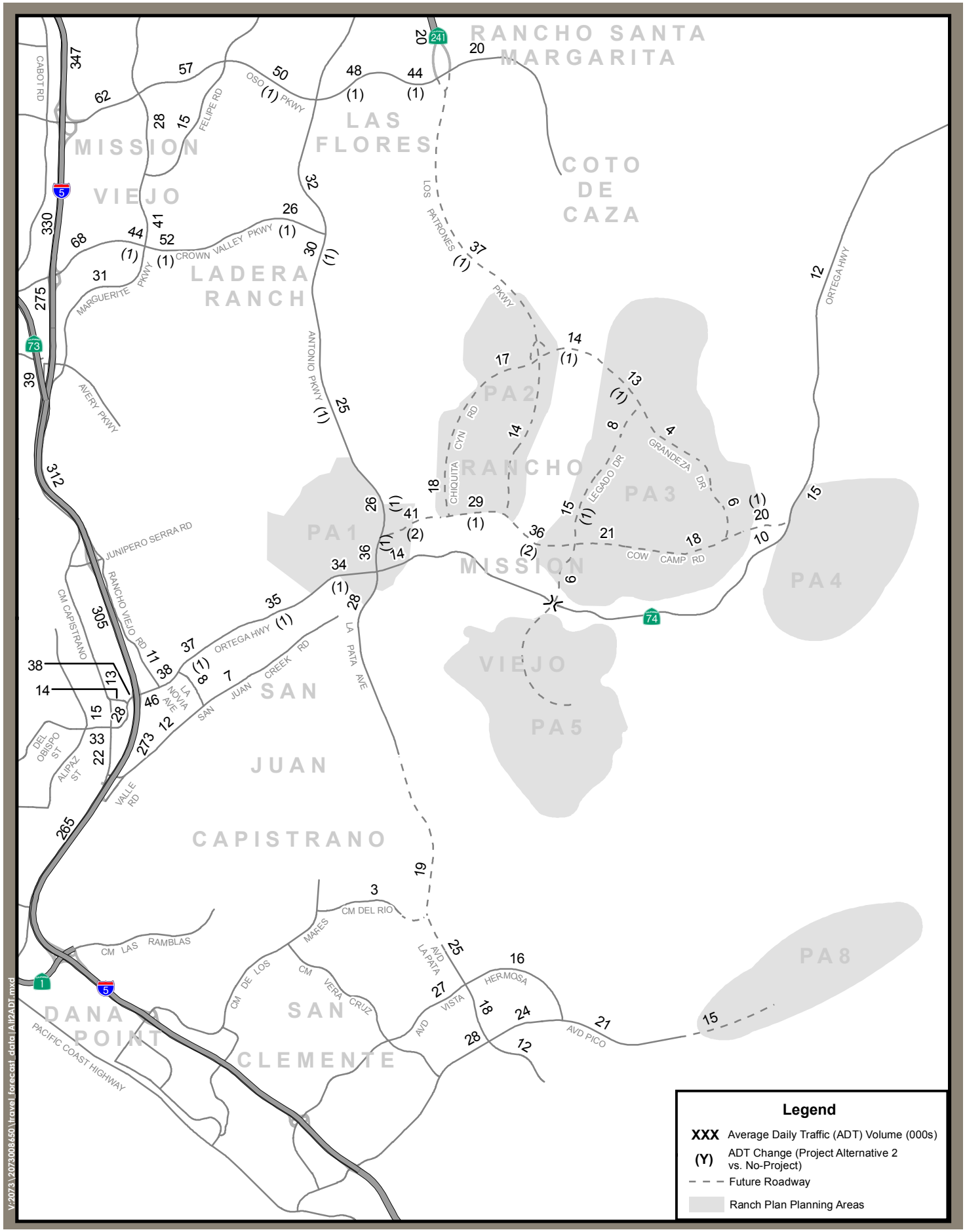

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Figure 4-3

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 2

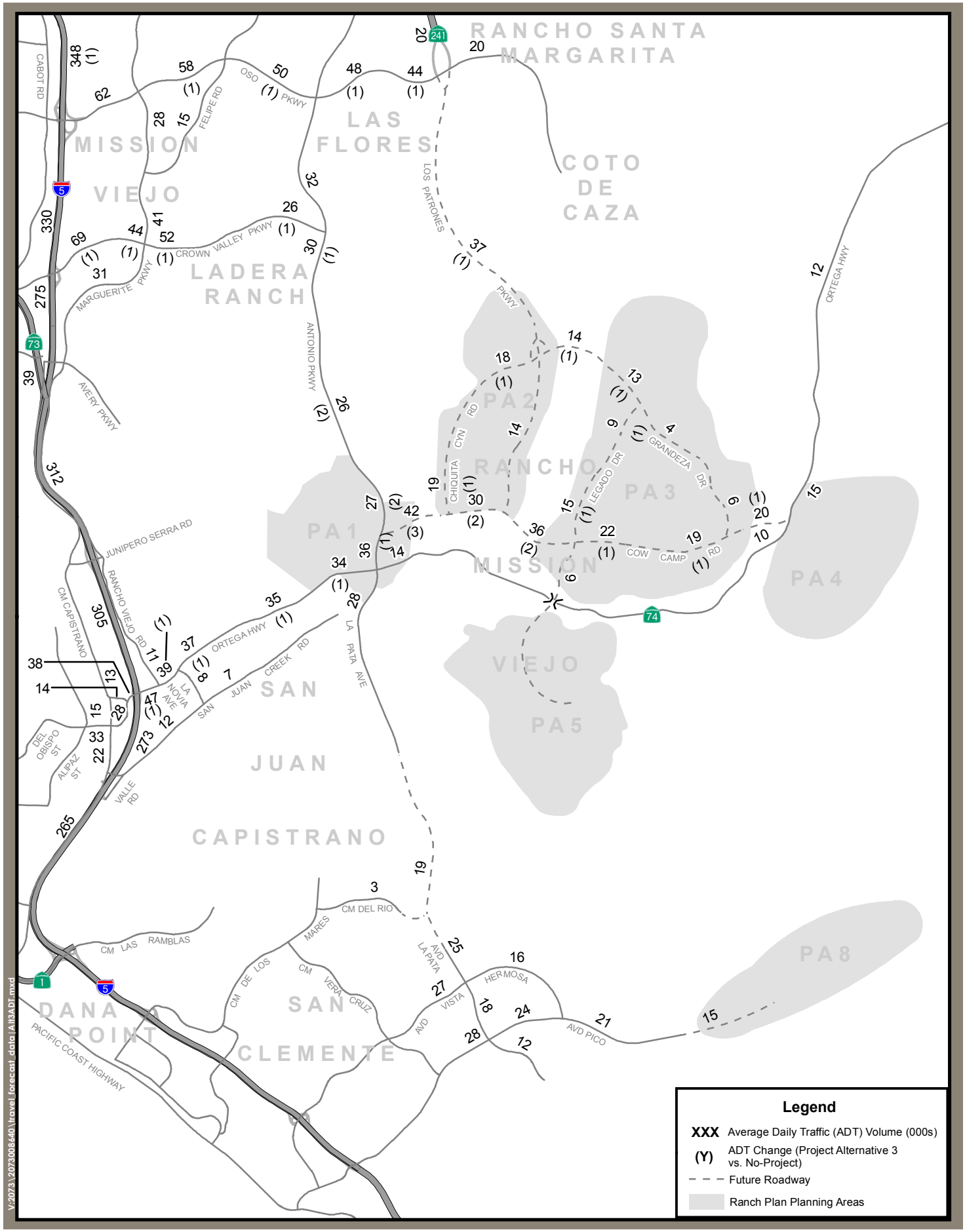

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Figure 4-4

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 3

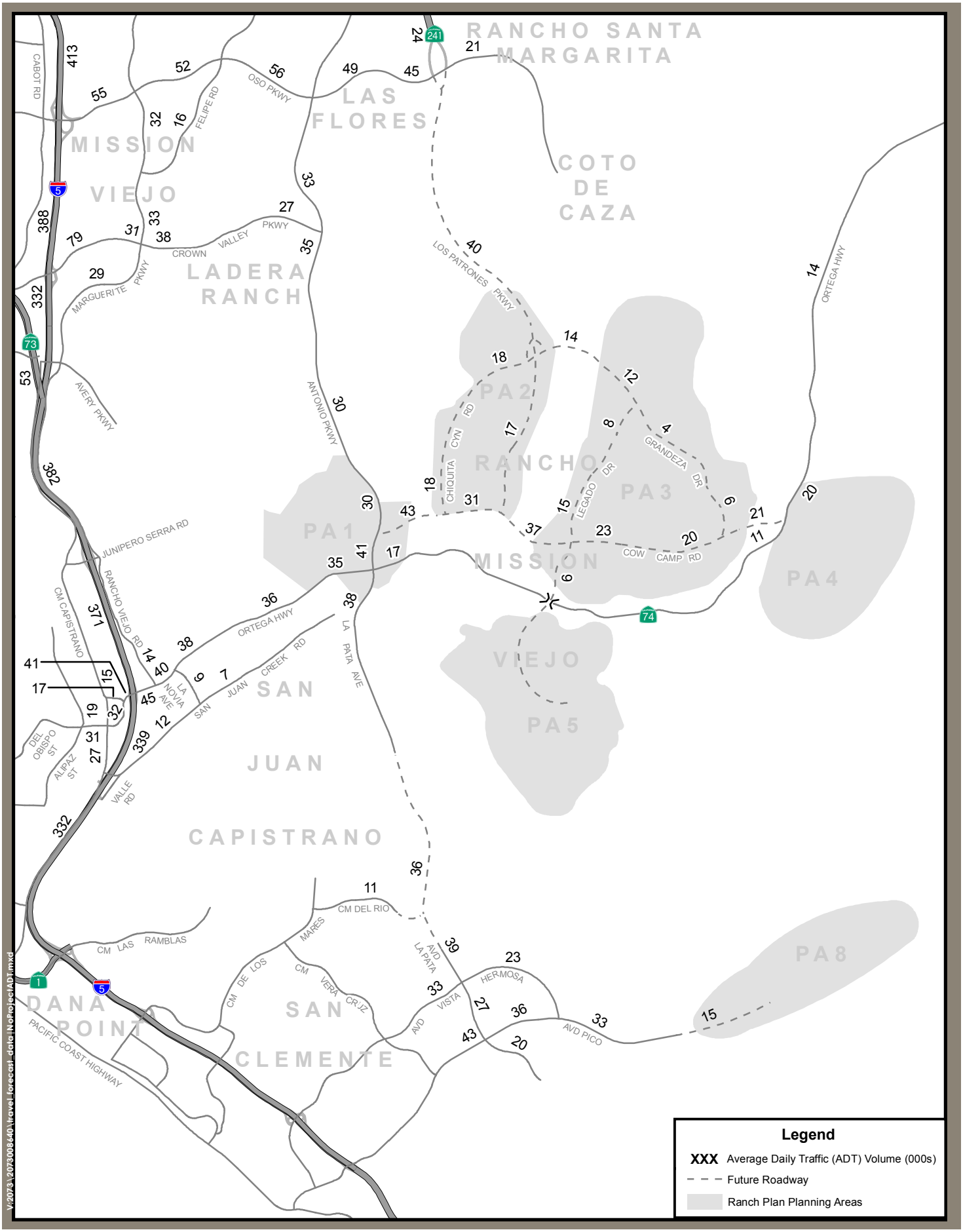

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Figure 4-5

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - No Project

4.8

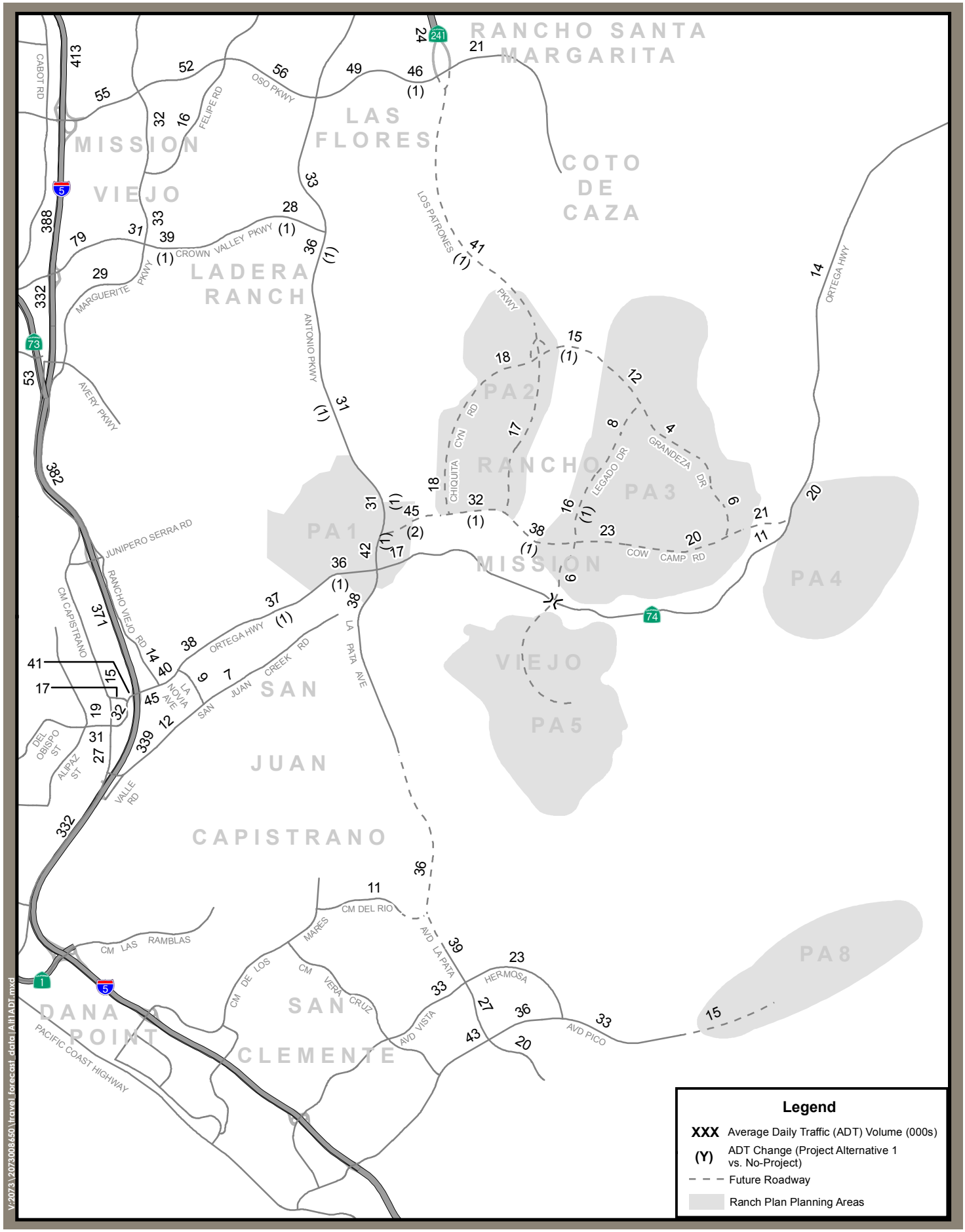

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Figure 4-6

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 1

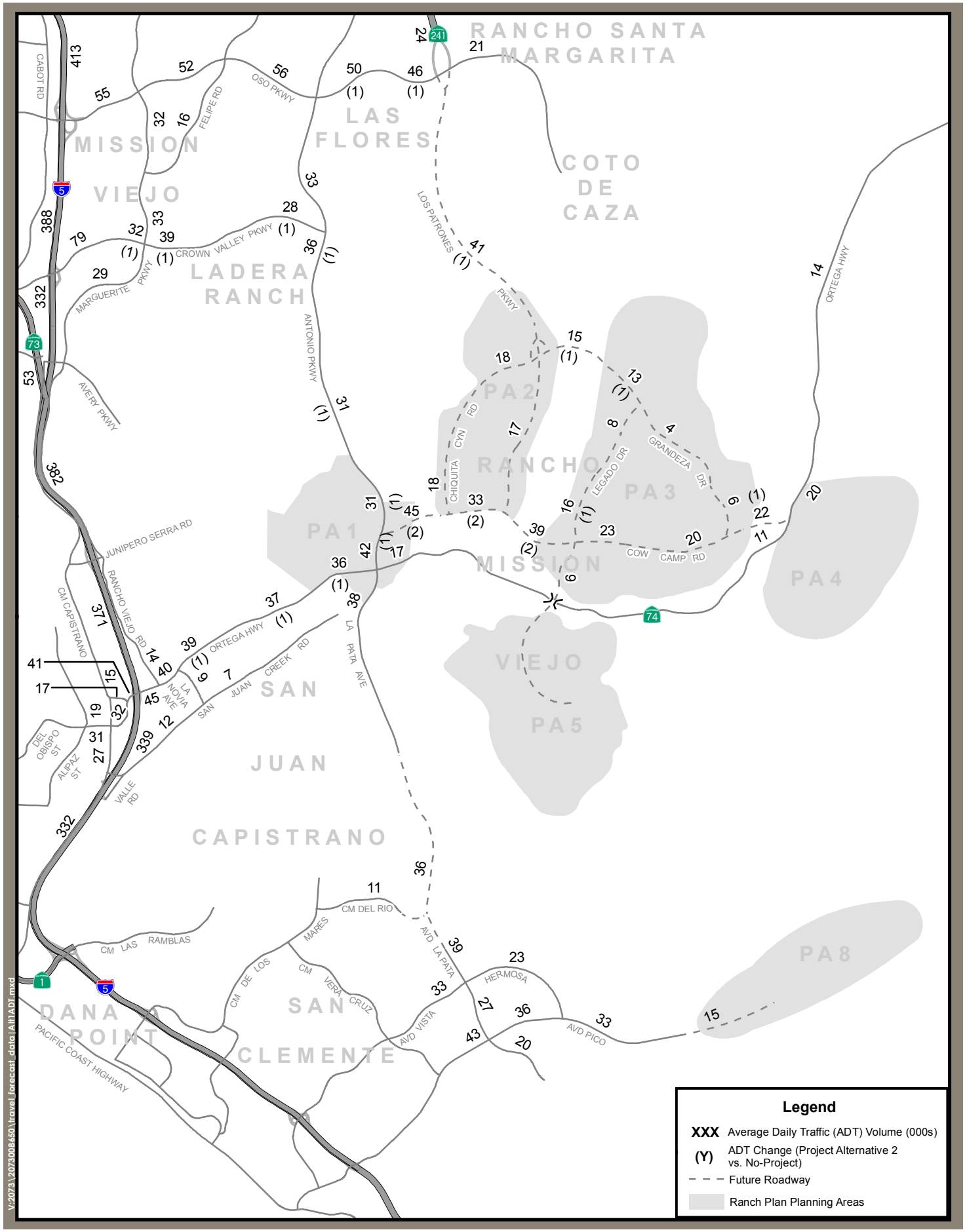

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Figure 4-7

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 2

4.10

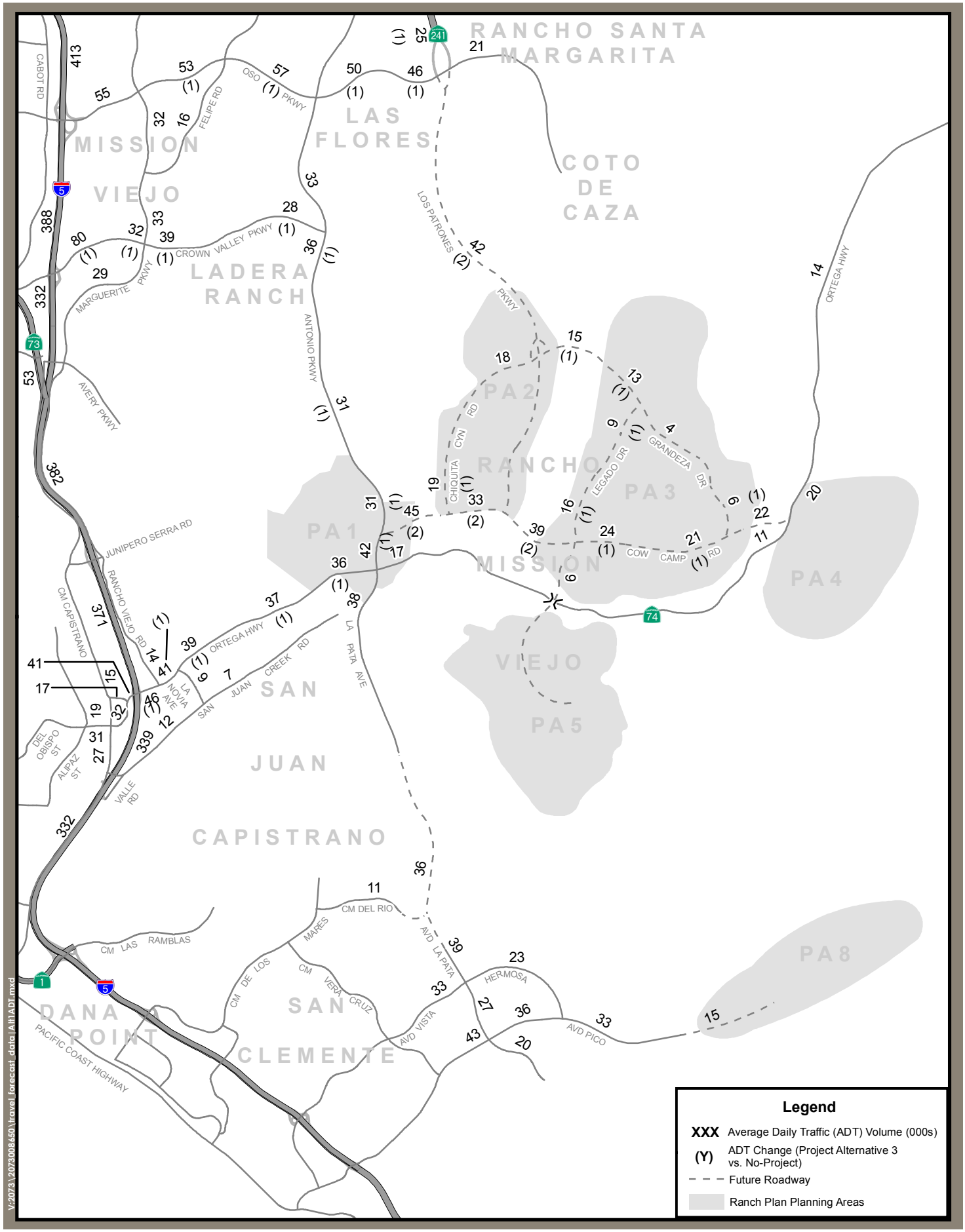

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Figure 4-8

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 3

4.11

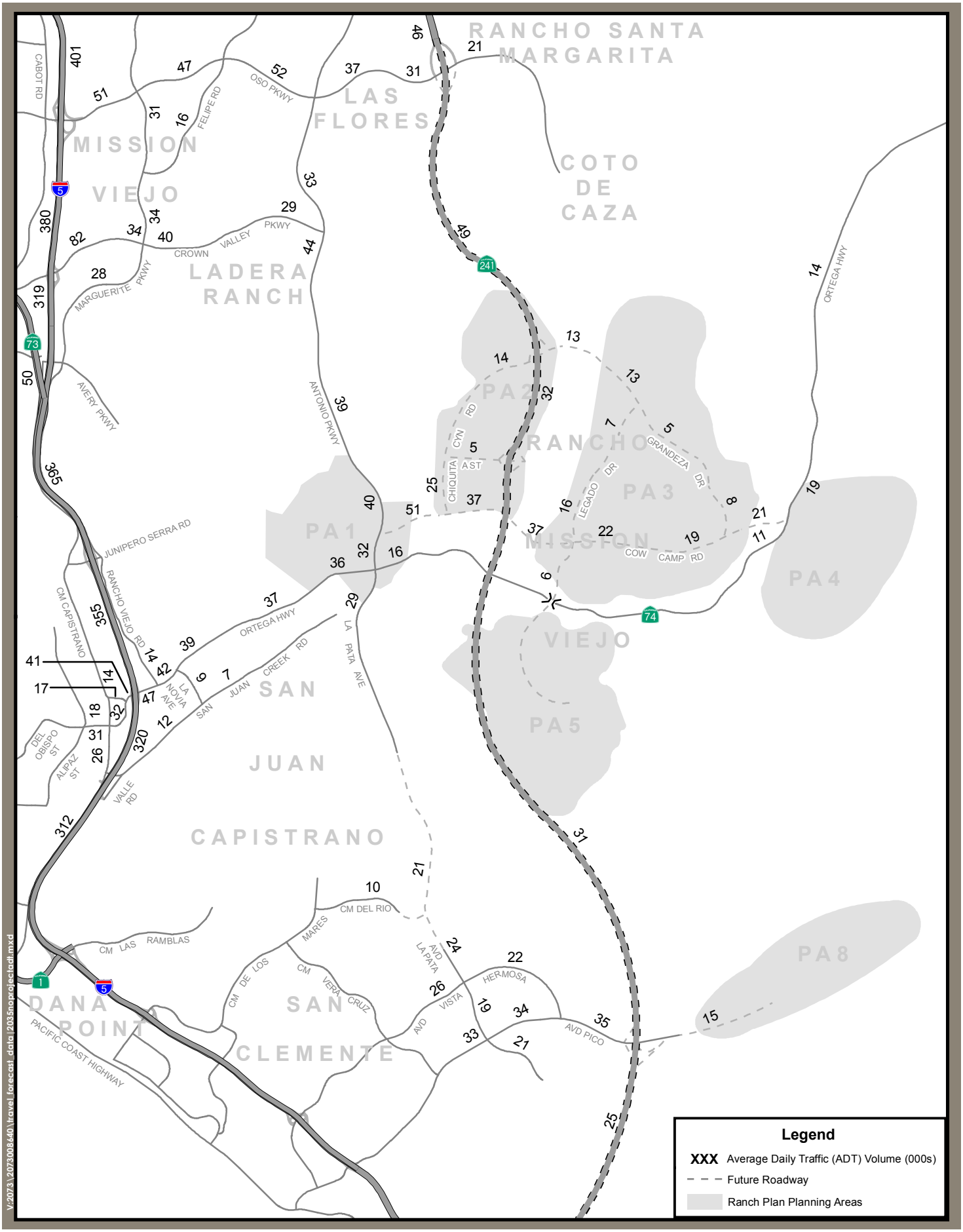

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Figure 4-9

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - No Project

4.12

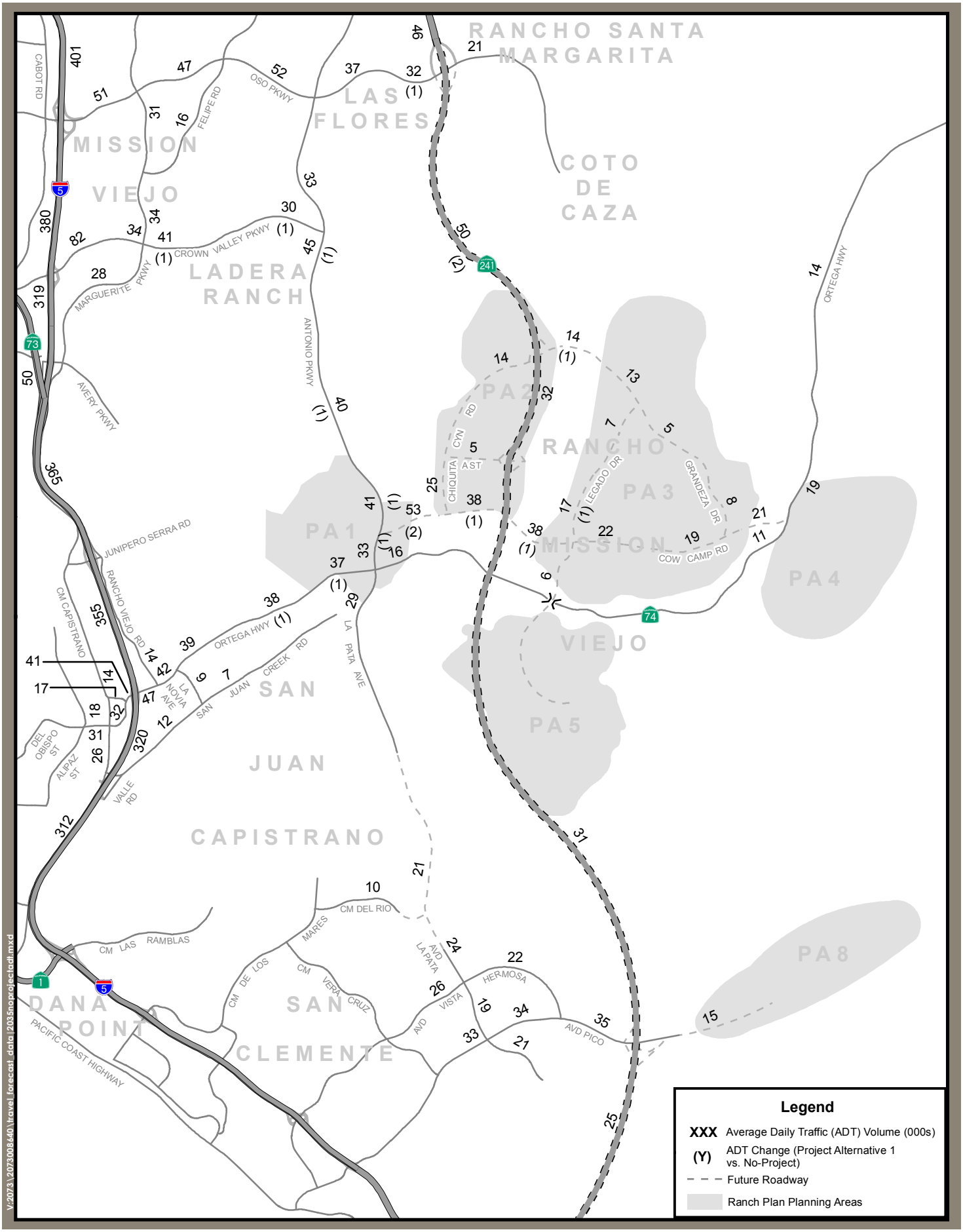

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Figure 4-10

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 1

4.13

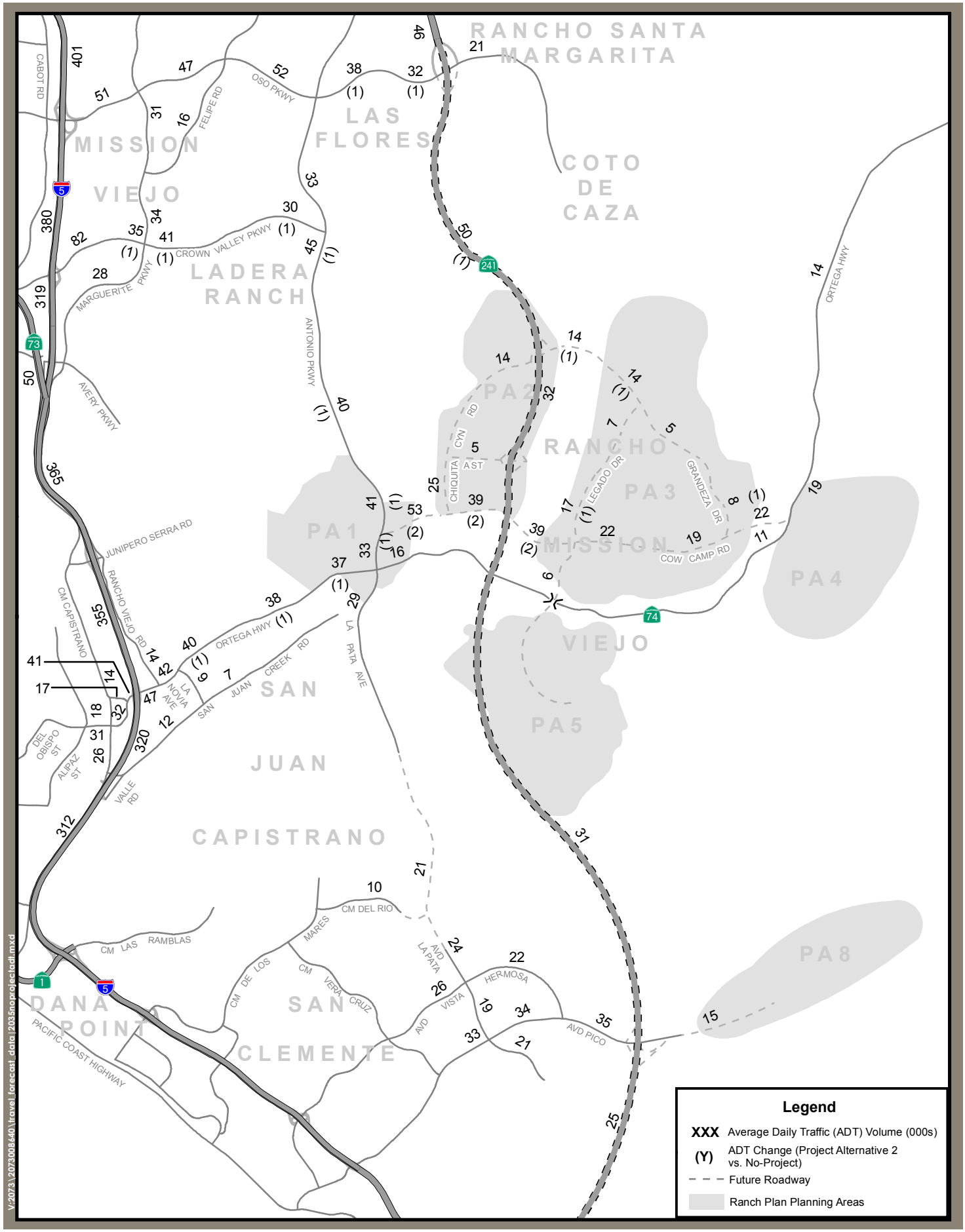

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Figure 4-11

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 2

4.14

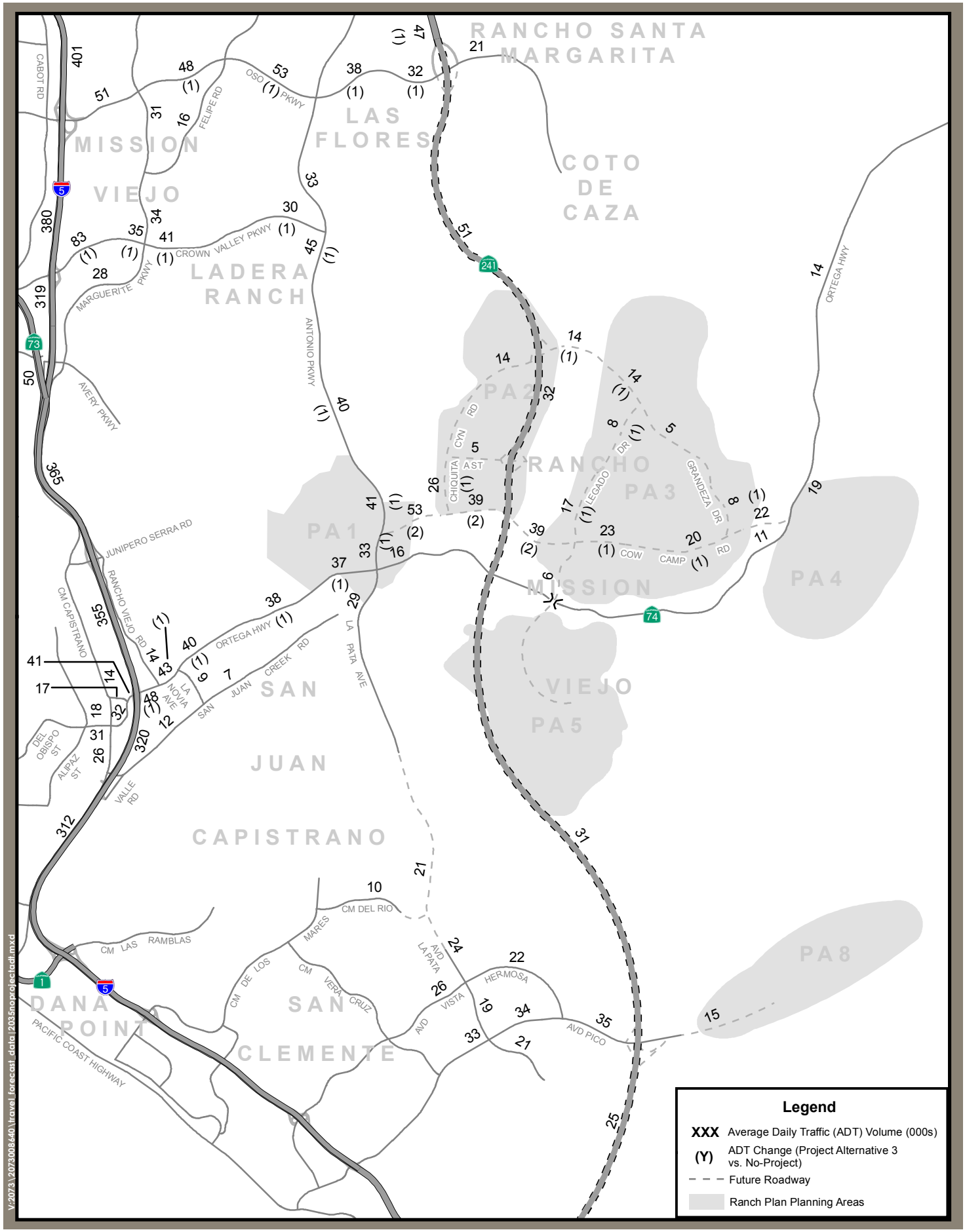

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Figure 4-12

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 3

4.15

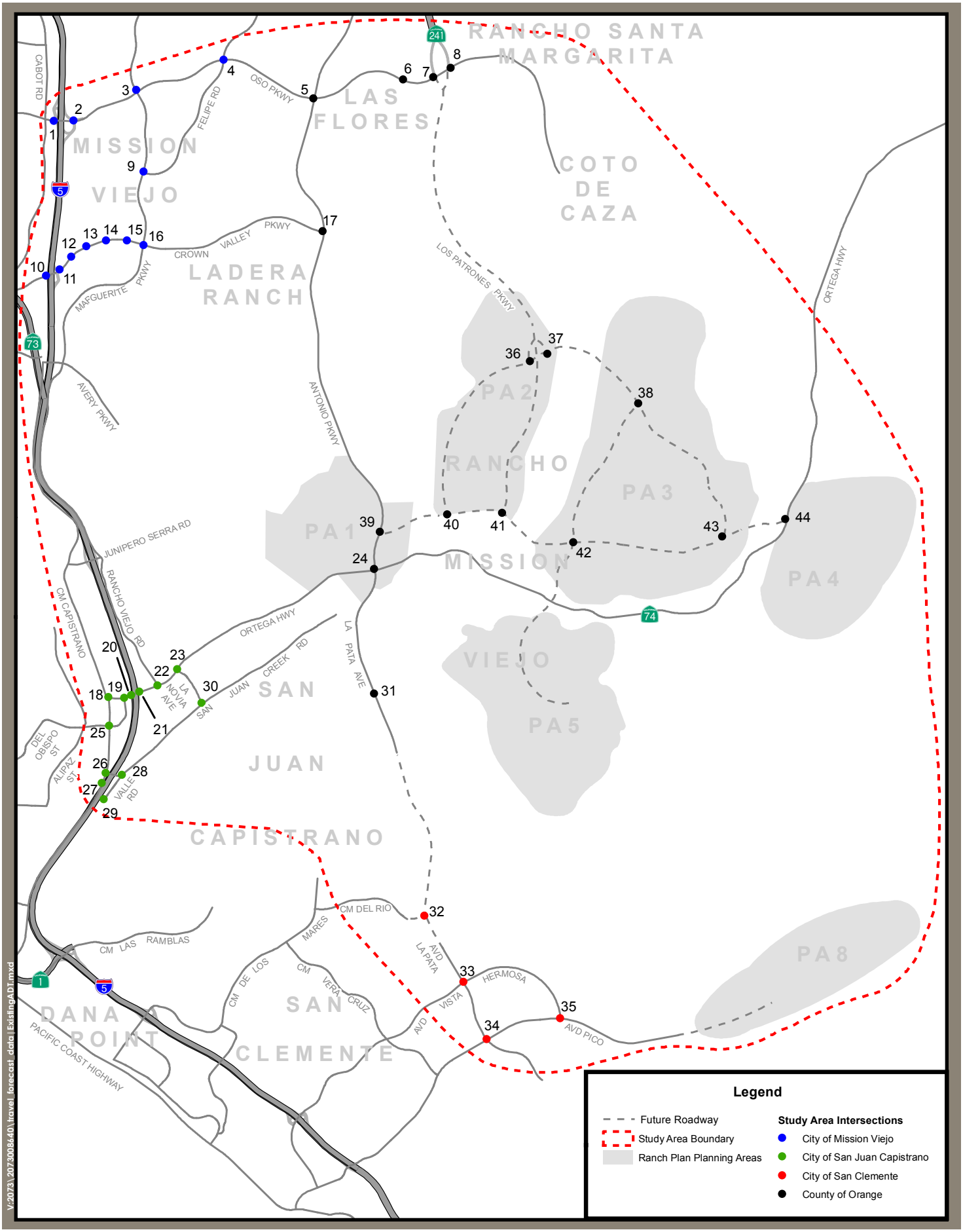

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Figure 4-13

Intersection Location Map - Alternative Existing Baseline and 2035 Cumulative Without SR-241 Extension

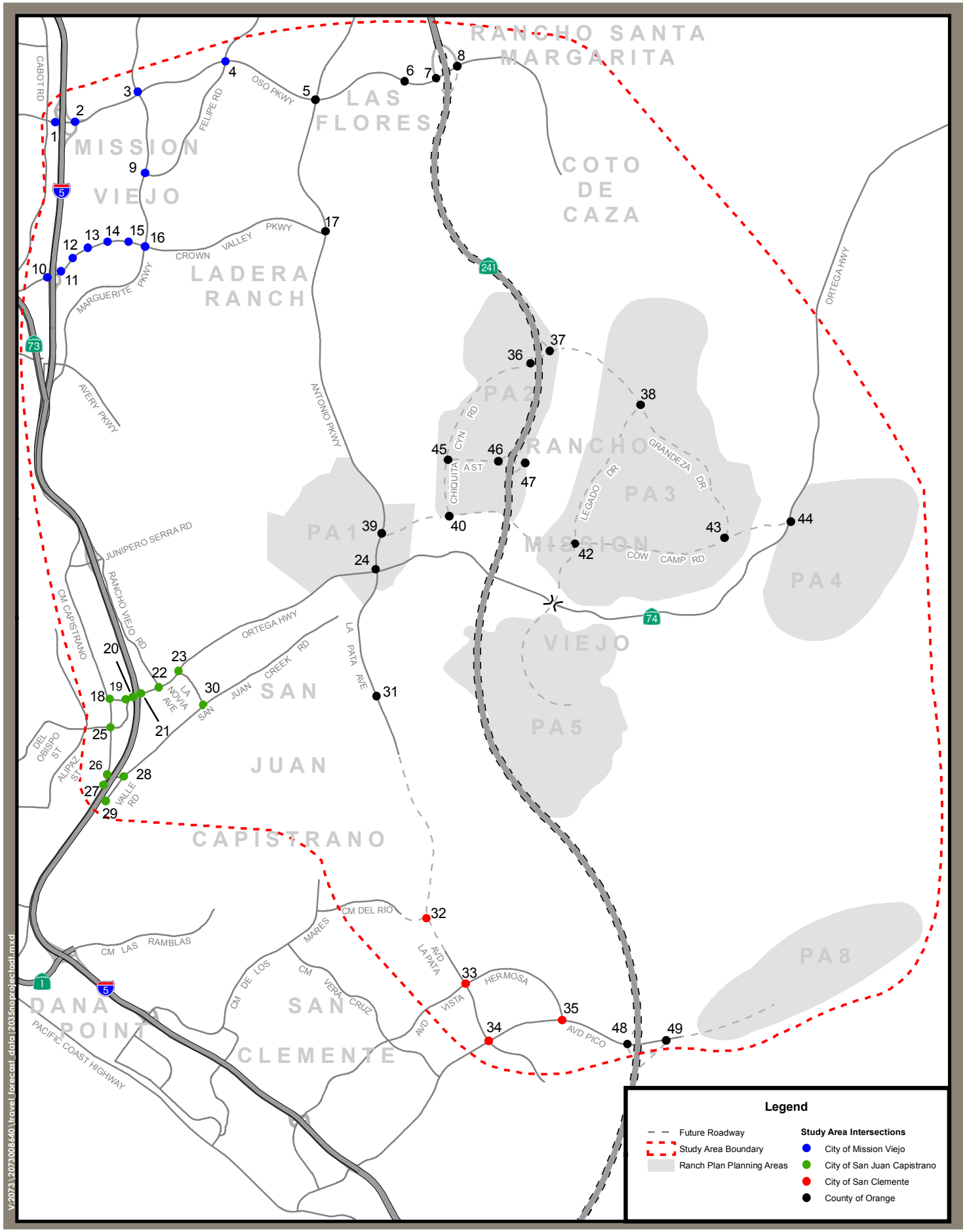

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Figure 4-14

Intersection Location Map - 2035 Cumulative With SR-241 Extension

4.17

Table 4-1 Alternative Existing Baseline Intersection LOS Summary (ICU Methodology)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
1. I-5 SB Ramps & Oso	Mission Viejo	No Project	.52	A	.73	C
		Project Alternative 1	.52	A	.73	C
		Project Alternative 2	.52	A	.73	C
		Project Alternative 3	.52	A	.73	C
2. I-5 NB Ramps & Oso	Mission Viejo	No Project	.52	A	.73	C
		Project Alternative 1	.52	A	.73	C
		Project Alternative 2	.52	A	.73	C
		Project Alternative 3	.52	A	.73	C
3. Marguerite & Oso	Mission Viejo	No Project	.79	C	.74	C
		Project Alternative 1	.79	C	.75	C
		Project Alternative 2	.79	C	.75	C
		Project Alternative 3	.80	C	.75	C
4. Felipe & Oso	Mission Viejo	No Project	.80	C	.82	D
		Project Alternative 1	.80	C	.82	D
		Project Alternative 2	.81	D	.82	D
		Project Alternative 3	.81	D	.82	D
5. Antonio & Oso	County	No Project	.68	B	.70	B
		Project Alternative 1	.68	B	.70	B
		Project Alternative 2	.69	B	.70	B
		Project Alternative 3	.69	B	.70	B
6. Tesoro Creek & Oso	County	No Project	.73	C	.52	A
		Project Alternative 1	.74	C	.53	A
		Project Alternative 2	.74	C	.53	A
		Project Alternative 3	.74	C	.53	A
7. SR-241/Los Patrones SB & Oso (Assumes no connection between the SR-241 mainline and Los Patrones)	County	No Project	.57	A	.58	A
		Project Alternative 1	.58	A	.58	A
		Project Alternative 2	.58	A	.58	A
		Project Alternative 3	.58	A	.58	A
7. SR-241/Los Patrones SB & Oso (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	County	No Project	.70	B	.75	C
		Project Alternative 1	.72	C	.76	C
		Project Alternative 2	.72	C	.77	C
		Project Alternative 3	.72	C	.78	C

Table 4-1 Alternative Existing Baseline Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones)	County	No Project	.66	B	.55	A
		Project Alternative 1	.67	B	.56	A
		Project Alternative 2	.67	B	.56	A
		Project Alternative 3	.68	B	.56	A
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	County	No Project	.72	C	.55	A
		Project Alternative 1	.73	C	.56	A
		Project Alternative 2	.73	C	.56	A
		Project Alternative 3	.74	C	.56	A
9. Marguerite & Felipe	Mission Viejo	No Project	.64	B	.65	B
		Project Alternative 1	.64	B	.65	B
		Project Alternative 2	.64	B	.65	B
		Project Alternative 3	.64	B	.65	B
10. I-5 SB Ramps & Crown Valley (a)	Mission Viejo	No Project	.58	A	.66	B
		Project Alternative 1	.58	A	.66	B
		Project Alternative 2	.58	A	.66	B
		Project Alternative 3	.58	A	.66	B
11. I-5 NB Ramps & Crown Valley (a)	Mission Viejo	No Project	.50	A	.53	A
		Project Alternative 1	.50	A	.53	A
		Project Alternative 2	.50	A	.53	A
		Project Alternative 3	.50	A	.53	A
12. Puerta Real & Crown Valley (a)	Mission Viejo	No Project	.56	A	.55	A
		Project Alternative 1	.56	A	.55	A
		Project Alternative 2	.56	A	.55	A
		Project Alternative 3	.56	A	.55	A
13. Medical Center & Crown Valley (a)	Mission Viejo	No Project	.52	A	.63	B
		Project Alternative 1	.52	A	.63	B
		Project Alternative 2	.52	A	.63	B
		Project Alternative 3	.52	A	.63	B
14. Los Altos & Crown Valley (a)	Mission Viejo	No Project	.53	A	.49	A
		Project Alternative 1	.53	A	.49	A
		Project Alternative 2	.53	A	.50	A
		Project Alternative 3	.54	A	.50	A

Table 4-1 Alternative Existing Baseline Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
15. Bellogente & Crown Valley (a)	Mission Viejo	No Project	.50	A	.46	A
		Project Alternative 1	.51	A	.46	A
		Project Alternative 2	.51	A	.46	A
		Project Alternative 3	.51	A	.46	A
16. Marguerite & Crown Valley (a)	Mission Viejo	No Project	.71	C	.82	D
		Project Alternative 1	.71	C	.82	D
		Project Alternative 2	.71	C	.82	D
		Project Alternative 3	.71	C	.82	D
17. Antonio & Crown Valley	County	No Project	.53	A	.59	A
		Project Alternative 1	.54	A	.61	B
		Project Alternative 2	.54	A	.61	B
		Project Alternative 3	.55	A	.62	B
18. Cm Capistrano & Ortega	San Juan Capistrano	No Project	.48	A	.47	A
		Project Alternative 1	.48	A	.47	A
		Project Alternative 2	.48	A	.47	A
		Project Alternative 3	.48	A	.47	A
19. Del Obispo & Ortega (a)	San Juan Capistrano	No Project	.47	A	.61	B
		Project Alternative 1	.47	A	.61	B
		Project Alternative 2	.47	A	.61	B
		Project Alternative 3	.47	A	.61	B
20. I-5 SB Ramps & Ortega (a)	San Juan Capistrano	No Project	.61	B	.64	B
		Project Alternative 1	.61	B	.65	B
		Project Alternative 2	.61	B	.65	B
		Project Alternative 3	.61	B	.66	B
21. I-5 NB Ramps & Ortega (a)	San Juan Capistrano	No Project	.65	B	.56	A
		Project Alternative 1	.65	B	.56	A
		Project Alternative 2	.65	B	.56	A
		Project Alternative 3	.65	B	.56	A
22. Rancho Viejo & Ortega	San Juan Capistrano	No Project	.67	B	.71	C
		Project Alternative 1	.67	B	.71	C
		Project Alternative 2	.67	B	.71	C
		Project Alternative 3	.67	B	.72	C

Table 4-1 Alternative Existing Baseline Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
23. La Novia & Ortega	San Juan Capistrano	No Project	.68	B	.66	B
		Project Alternative 1	.68	B	.67	B
		Project Alternative 2	.69	B	.67	B
		Project Alternative 3	.69	B	.67	B
24. Antonio/La Pata & Ortega	San Juan Capistrano	No Project	.84	D	.62	B
		Project Alternative 1	.84	D	.62	B
		Project Alternative 2	.84	D	.62	B
		Project Alternative 3	.84	D	.63	B
25. Cm Capistrano & Del Obispo (a)	San Juan Capistrano	No Project	.65	B	.67	B
		Project Alternative 1	.65	B	.67	B
		Project Alternative 2	.65	B	.67	B
		Project Alternative 3	.65	B	.67	B
26. Cm Capistrano San Juan Creek (a)	San Juan Capistrano	No Project	.37	A	.42	A
		Project Alternative 1	.37	A	.42	A
		Project Alternative 2	.37	A	.42	A
		Project Alternative 3	.37	A	.42	A
27. Cm Capistrano & I-5 SB Ramps (a)	San Juan Capistrano	No Project	.49	A	.54	A
		Project Alternative 1	.49	A	.54	A
		Project Alternative 2	.49	A	.54	A
		Project Alternative 3	.49	A	.54	A
28. Valle & San Juan Creek	San Juan Capistrano	No Project	.57	A	.62	B
		Project Alternative 1	.57	A	.62	B
		Project Alternative 2	.57	A	.62	B
		Project Alternative 3	.57	A	.62	B
29. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	No Project	.48	A	.55	A
		Project Alternative 1	.48	A	.55	A
		Project Alternative 2	.48	A	.55	A
		Project Alternative 3	.48	A	.55	A
30. La Novia & San Juan Creek	San Juan Capistrano	No Project	.48	A	.42	A
		Project Alternative 1	.48	A	.42	A
		Project Alternative 2	.48	A	.42	A
		Project Alternative 3	.48	A	.42	A

Table 4-1 Alternative Existing Baseline Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
31. La Pata & Vista Montana	County	No Project	.75	C	.52	A
		Project Alternative 1	.75	C	.53	A
		Project Alternative 2	.75	C	.53	A
		Project Alternative 3	.75	C	.53	A
32. Avd La Pata & Cm Del Rio	San Clemente	No Project	.48	A	.49	A
		Project Alternative 1	.48	A	.49	A
		Project Alternative 2	.48	A	.49	A
		Project Alternative 3	.48	A	.49	A
33. Avd La Pata & Avd Vista Hermosa	San Clemente	No Project	.54	A	.54	A
		Project Alternative 1	.54	A	.54	A
		Project Alternative 2	.54	A	.54	A
		Project Alternative 3	.54	A	.54	A
34. Avd La Pata & Avd Pico	San Clemente	No Project	.67	B	.71	C
		Project Alternative 1	.67	B	.71	C
		Project Alternative 2	.67	B	.71	C
		Project Alternative 3	.67	B	.71	C
35. Avd Vista Hermosa & Avd Pico	San Clemente	No Project	.28	A	.29	A
		Project Alternative 1	.28	A	.30	A
		Project Alternative 2	.28	A	.30	A
		Project Alternative 3	.28	A	.30	A
36. Los Patrones SB & Chiquita Canyon	County	No Project	.50	A	.77	C
		Project Alternative 1	.52	A	.78	C
		Project Alternative 2	.52	A	.78	C
		Project Alternative 3	.52	A	.78	C
37. Los Patrones NB & Grandeza	County	No Project	.62	B	.50	A
		Project Alternative 1	.64	B	.52	A
		Project Alternative 2	.65	B	.52	A
		Project Alternative 3	.65	B	.53	A
38. Legado & Grandeza	County	No Project	.47	A	.56	A
		Project Alternative 1	.50	A	.56	A
		Project Alternative 2	.50	A	.56	A
		Project Alternative 3	.50	A	.57	A

Table 4-1 Alternative Existing Baseline Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
39. Antonio & Cow Camp	County	No Project	.53	A	.60	A
		Project Alternative 1	.54	A	.62	B
		Project Alternative 2	.54	A	.63	B
		Project Alternative 3	.55	A	.63	B
40. Chiquita Canyon & Cow Camp	County	No Project	.56	A	.60	A
		Project Alternative 1	.58	A	.63	B
		Project Alternative 2	.58	A	.63	B
		Project Alternative 3	.59	A	.64	B
41. Los Patrones & Cow Camp	County	No Project	.66	B	.55	A
		Project Alternative 1	.67	B	.56	A
		Project Alternative 2	.68	B	.56	A
		Project Alternative 3	.68	B	.56	A
42. Legado & Cow Camp	County	No Project	.60	A	.63	B
		Project Alternative 1	.62	B	.64	B
		Project Alternative 2	.62	B	.65	B
		Project Alternative 3	.64	B	.66	B
43. Grandeza & Cow Camp	County	No Project	.44	A	.50	A
		Project Alternative 1	.45	A	.50	A
		Project Alternative 2	.45	A	.50	A
		Project Alternative 3	.45	A	.50	A
44. Ortega & Cow Camp	County	No Project	.64	B	.74	C
		Project Alternative 1	.64	B	.74	C
		Project Alternative 2	.64	B	.74	C
		Project Alternative 3	.64	B	.74	C

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

Table 4-2 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (ICU Methodology)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
1. I-5 SB Ramps & Oso	Mission Viejo	No Project	.53	A	.78	C
		Project Alternative 1	.53	A	.78	C
		Project Alternative 2	.53	A	.78	C
		Project Alternative 3	.53	A	.78	C
2. I-5 NB Ramps & Oso	Mission Viejo	No Project	.55	A	.80	C
		Project Alternative 1	.55	A	.80	C
		Project Alternative 2	.55	A	.80	C
		Project Alternative 3	.55	A	.80	C
3. Marguerite & Oso	Mission Viejo	No Project	.74	C	.69	B
		Project Alternative 1	.74	C	.69	B
		Project Alternative 2	.74	C	.69	B
		Project Alternative 3	.74	C	.69	B
4. Felipe & Oso	Mission Viejo	No Project	.85	D	.90	D
		Project Alternative 1	.85	D	.90	D
		Project Alternative 2	.85	D	.90	D
		Project Alternative 3	.85	D	.90	D
5. Antonio & Oso	County	No Project	.65	B	.65	B
		Project Alternative 1	.65	B	.65	B
		Project Alternative 2	.65	B	.65	B
		Project Alternative 3	.65	B	.65	B
6. Tesoro Creek & Oso	County	No Project	.77	C	.57	A
		Project Alternative 1	.78	C	.58	A
		Project Alternative 2	.78	C	.58	A
		Project Alternative 3	.78	C	.59	A
7. SR-241/Los Patrones SB & Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones)	County	No Project	.61	B	.64	B
		Project Alternative 1	.62	B	.66	B
		Project Alternative 2	.62	B	.66	B
		Project Alternative 3	.62	B	.66	B
7. SR-241/Los Patrones SB & Oso Pkwy (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	County	No Project	.75	C	.80	C
		Project Alternative 1	.76	C	.82	D
		Project Alternative 2	.76	C	.82	D
		Project Alternative 3	.76	C	.83	D

Table 4-2 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones)	County	No Project	.70	B	.57	A
		Project Alternative 1	.71	C	.58	A
		Project Alternative 2	.71	C	.58	A
		Project Alternative 3	.71	C	.58	A
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	County	No Project	.76	C	.57	A
		Project Alternative 1	.77	C	.58	A
		Project Alternative 2	.77	C	.58	A
		Project Alternative 3	.77	C	.58	A
9. Marguerite & Felipe	Mission Viejo	No Project	.68	B	.57	A
		Project Alternative 1	.68	B	.57	A
		Project Alternative 2	.68	B	.57	A
		Project Alternative 3	.68	B	.57	A
10. I-5 SB Ramps & Crown Valley (a)	Mission Viejo	No Project	.59	A	.67	B
		Project Alternative 1	.59	A	.67	B
		Project Alternative 2	.59	A	.67	B
		Project Alternative 3	.59	A	.67	B
11. I-5 NB Ramps & Crown Valley (a)	Mission Viejo	No Project	.52	A	.56	A
		Project Alternative 1	.52	A	.56	A
		Project Alternative 2	.52	A	.56	A
		Project Alternative 3	.52	A	.56	A
12. Puerta Real & Crown Valley (a)	Mission Viejo	No Project	.57	A	.71	C
		Project Alternative 1	.57	A	.72	C
		Project Alternative 2	.57	A	.72	C
		Project Alternative 3	.57	A	.72	C
13. Medical Center & Crown Valley (a)	Mission Viejo	No Project	.47	A	.55	A
		Project Alternative 1	.47	A	.56	A
		Project Alternative 2	.47	A	.56	A
		Project Alternative 3	.47	A	.56	A
14. Los Altos & Crown Valley (a)	Mission Viejo	No Project	.43	A	.41	A
		Project Alternative 1	.43	A	.41	A
		Project Alternative 2	.43	A	.42	A
		Project Alternative 3	.43	A	.42	A

Table 4-2 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
15. Bellogente & Crown Valley (a)	Mission Viejo	No Project	.41	A	.38	A
		Project Alternative 1	.42	A	.39	A
		Project Alternative 2	.42	A	.39	A
		Project Alternative 3	.42	A	.39	A
16. Marguerite & Crown Valley (a)	Mission Viejo	No Project	.70	B	.73	C
		Project Alternative 1	.70	B	.73	C
		Project Alternative 2	.70	B	.73	C
		Project Alternative 3	.71	C	.73	C
17. Antonio & Crown Valley	County	No Project	.45	A	.53	A
		Project Alternative 1	.45	A	.53	A
		Project Alternative 2	.45	A	.54	A
		Project Alternative 3	.46	A	.54	A
18. Cm Capistrano & Ortega	San Juan Capistrano	No Project	.76	C	.71	C
		Project Alternative 1	.76	C	.71	C
		Project Alternative 2	.76	C	.71	C
		Project Alternative 3	.76	C	.71	C
19. Del Obispo & Ortega (a)	San Juan Capistrano	No Project	.74	C	.68	B
		Project Alternative 1	.75	C	.68	B
		Project Alternative 2	.75	C	.68	B
		Project Alternative 3	.75	C	.68	B
20. I-5 SB Ramps & Ortega (a)	San Juan Capistrano	No Project	.68	B	.80	C
		Project Alternative 1	.68	B	.80	C
		Project Alternative 2	.68	B	.80	C
		Project Alternative 3	.68	B	.81	D
21. I-5 NB Ramps & Ortega (a)	San Juan Capistrano	No Project	.73	C	.67	B
		Project Alternative 1	.73	C	.67	B
		Project Alternative 2	.73	C	.67	B
		Project Alternative 3	.73	C	.67	B
22. Rancho Viejo & Ortega	San Juan Capistrano	No Project	.80	C	.75	C
		Project Alternative 1	.80	C	.76	C
		Project Alternative 2	.80	C	.76	C
		Project Alternative 3	.80	C	.76	C

Table 4-2 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
23. La Novia & Ortega	San Juan Capistrano	No Project	.71	C	.64	B
		Project Alternative 1	.72	C	.65	B
		Project Alternative 2	.72	C	.65	B
		Project Alternative 3	.72	C	.66	B
24. Antonio/La Pata & Ortega	San Juan Capistrano	No Project	.88	D	.75	C
		Project Alternative 1	.88	D	.75	C
		Project Alternative 2	.88	D	.75	C
		Project Alternative 3	.88	D	.75	C
25. Cm Capistrano & Del Obispo (a)	San Juan Capistrano	No Project	.76	C	.82	D
		Project Alternative 1	.76	C	.82	D
		Project Alternative 2	.76	C	.82	D
		Project Alternative 3	.76	C	.82	D
26. Cm Capistrano San Juan Creek (a)	San Juan Capistrano	No Project	.60	A	.66	B
		Project Alternative 1	.60	A	.66	B
		Project Alternative 2	.60	A	.66	B
		Project Alternative 3	.60	A	.66	B
27. Cm Capistrano & I-5 SB Ramps (a)	San Juan Capistrano	No Project	.66	B	.68	B
		Project Alternative 1	.66	B	.68	B
		Project Alternative 2	.66	B	.68	B
		Project Alternative 3	.66	B	.68	B
28. Valle & San Juan Creek	San Juan Capistrano	No Project	.80	C	.93	E
		Project Alternative 1	.80	C	.93	E
		Project Alternative 2	.80	C	.93	E
		Project Alternative 3	.80	C	.93	E
29. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	No Project	.72	C	.65	B
		Project Alternative 1	.72	C	.65	B
		Project Alternative 2	.72	C	.65	B
		Project Alternative 3	.72	C	.65	B
30. La Novia & San Juan Creek	San Juan Capistrano	No Project	.51	A	.45	A
		Project Alternative 1	.51	A	.45	A
		Project Alternative 2	.51	A	.45	A
		Project Alternative 3	.51	A	.45	A

Table 4-2 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
31. La Pata & Vista Montana	County	No Project	.87	D	.66	B
		Project Alternative 1	.88	D	.66	B
		Project Alternative 2	.88	D	.66	B
		Project Alternative 3	.88	D	.66	B
32. Avd La Pata & Cm Del Rio	San Clemente	No Project	.77	C	.88	D
		Project Alternative 1	.77	C	.88	D
		Project Alternative 2	.77	C	.88	D
		Project Alternative 3	.77	C	.88	D
33. Avd La Pata & Avd Vista Hermosa	San Clemente	No Project	.78	C	.76	C
		Project Alternative 1	.79	C	.76	C
		Project Alternative 2	.79	C	.76	C
		Project Alternative 3	.79	C	.76	C
34. Avd La Pata & Avd Pico	San Clemente	No Project	.87	D	.85	D
		Project Alternative 1	.87	D	.85	D
		Project Alternative 2	.87	D	.85	D
		Project Alternative 3	.87	D	.85	D
35. Avd Vista Hermosa & Avd Pico	San Clemente	No Project	.49	A	.52	A
		Project Alternative 1	.49	A	.52	A
		Project Alternative 2	.49	A	.52	A
		Project Alternative 3	.49	A	.52	A
36. Los Patrones SB & Chiquita Canyon	County	No Project	.53	A	.79	C
		Project Alternative 1	.54	A	.81	D
		Project Alternative 2	.54	A	.81	D
		Project Alternative 3	.54	A	.82	D
37. Los Patrones NB & Grandeza	County	No Project	.63	B	.52	A
		Project Alternative 1	.65	B	.55	A
		Project Alternative 2	.65	B	.55	A
		Project Alternative 3	.67	B	.55	A
38. Legado & Grandeza	County	No Project	.49	A	.56	A
		Project Alternative 1	.50	A	.57	A
		Project Alternative 2	.50	A	.57	A
		Project Alternative 3	.51	A	.58	A

Table 4-2 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
39. Antonio & Cow Camp	County	No Project	.64	B	.69	B
		Project Alternative 1	.64	B	.70	B
		Project Alternative 2	.65	B	.70	B
		Project Alternative 3	.65	B	.71	C
40. Chiquita Canyon & Cow Camp	County	No Project	.61	B	.67	B
		Project Alternative 1	.63	B	.69	B
		Project Alternative 2	.63	B	.69	B
		Project Alternative 3	.64	B	.70	B
41. Los Patrones & Cow Camp	County	No Project	.77	C	.63	B
		Project Alternative 1	.79	C	.64	B
		Project Alternative 2	.79	C	.64	B
		Project Alternative 3	.80	C	.64	B
42. Legado & Cow Camp	County	No Project	.63	B	.67	B
		Project Alternative 1	.66	B	.68	B
		Project Alternative 2	.66	B	.69	B
		Project Alternative 3	.67	B	.69	B
43. Grandeza & Cow Camp	County	No Project	.52	A	.53	A
		Project Alternative 1	.53	A	.54	A
		Project Alternative 2	.53	A	.54	A
		Project Alternative 3	.53	A	.55	A
44. Ortega & Cow Camp	County	No Project	.71	C	.84	D
		Project Alternative 1	.71	C	.84	D
		Project Alternative 2	.71	C	.84	D
		Project Alternative 3	.71	C	.84	D

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

Denotes a peak hour deficiency.

Table 4-3 2035 Cumulative With SR-241 Extension Intersection LOS Summary (ICU Methodology)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
1. I-5 SB Ramps & Oso	Mission Viejo	No Project	.54	A	.75	C
		Project Alternative 1	.54	A	.75	C
		Project Alternative 2	.54	A	.75	C
		Project Alternative 3	.54	A	.75	C
2. I-5 NB Ramps & Oso	Mission Viejo	No Project	.57	A	.78	C
		Project Alternative 1	.57	A	.78	C
		Project Alternative 2	.57	A	.78	C
		Project Alternative 3	.57	A	.78	C
3. Marguerite & Oso	Mission Viejo	No Project	.73	C	.68	B
		Project Alternative 1	.73	C	.68	B
		Project Alternative 2	.73	C	.68	B
		Project Alternative 3	.73	C	.68	B
4. Felipe & Oso	Mission Viejo	No Project	.85	D	.88	D
		Project Alternative 1	.85	D	.88	D
		Project Alternative 2	.85	D	.88	D
		Project Alternative 3	.85	D	.89	D
5. Antonio & Oso	County	No Project	.62	B	.65	B
		Project Alternative 1	.62	B	.65	B
		Project Alternative 2	.62	B	.65	B
		Project Alternative 3	.62	B	.65	B
6. Tesoro Creek & Oso	County	No Project	.55	A	.46	A
		Project Alternative 1	.55	A	.47	A
		Project Alternative 2	.55	A	.47	A
		Project Alternative 3	.55	A	.47	A
7. SR-241 SB & Oso Pkwy	County	No Project	.39	A	.46	A
		Project Alternative 1	.39	A	.48	A
		Project Alternative 2	.40	A	.48	A
		Project Alternative 3	.40	A	.49	A
8. SR-241 NB & Oso Pkwy	County	No Project	.53	A	.46	A
		Project Alternative 1	.54	A	.47	A
		Project Alternative 2	.54	A	.47	A
		Project Alternative 3	.54	A	.47	A

Table 4-3 2035 Cumulative With SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
9. Marguerite & Felipe	Mission Viejo	No Project	.68	B	.55	A
		Project Alternative 1	.68	B	.55	A
		Project Alternative 2	.68	B	.55	A
		Project Alternative 3	.68	B	.55	A
10. I-5 SB Ramps & Crown Valley (a)	Mission Viejo	No Project	.61	B	.69	B
		Project Alternative 1	.61	B	.70	B
		Project Alternative 2	.61	B	.70	B
		Project Alternative 3	.61	B	.70	B
11. I-5 NB Ramps & Crown Valley (a)	Mission Viejo	No Project	.53	A	.58	A
		Project Alternative 1	.53	A	.58	A
		Project Alternative 2	.53	A	.58	A
		Project Alternative 3	.53	A	.58	A
12. Puerta Real & Crown Valley (a)	Mission Viejo	No Project	.58	A	.72	C
		Project Alternative 1	.58	A	.72	C
		Project Alternative 2	.58	A	.72	C
		Project Alternative 3	.58	A	.72	C
13. Medical Center & Crown Valley (a)	Mission Viejo	No Project	.48	A	.56	A
		Project Alternative 1	.49	A	.56	A
		Project Alternative 2	.49	A	.56	A
		Project Alternative 3	.49	A	.56	A
14. Los Altos & Crown Valley (a)	Mission Viejo	No Project	.44	A	.42	A
		Project Alternative 1	.44	A	.42	A
		Project Alternative 2	.44	A	.42	A
		Project Alternative 3	.44	A	.42	A
15. Bellogente & Crown Valley (a)	Mission Viejo	No Project	.42	A	.39	A
		Project Alternative 1	.42	A	.39	A
		Project Alternative 2	.43	A	.39	A
		Project Alternative 3	.43	A	.39	A
16. Marguerite & Crown Valley (a)	Mission Viejo	No Project	.72	C	.72	C
		Project Alternative 1	.73	C	.72	C
		Project Alternative 2	.73	C	.72	C
		Project Alternative 3	.73	C	.72	C

Table 4-3 2035 Cumulative With SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
17. Antonio & Crown Valley	County	No Project	.55	A	.51	A
		Project Alternative 1	.56	A	.53	A
		Project Alternative 2	.56	A	.53	A
		Project Alternative 3	.57	A	.54	A
18. Cm Capistrano & Ortega	San Juan Capistrano	No Project	.71	C	.67	B
		Project Alternative 1	.71	C	.67	B
		Project Alternative 2	.71	C	.67	B
		Project Alternative 3	.71	C	.67	B
19. Del Obispo & Ortega (a)	San Juan Capistrano	No Project	.73	C	.68	B
		Project Alternative 1	.74	C	.68	B
		Project Alternative 2	.74	C	.68	B
		Project Alternative 3	.74	C	.68	B
20. I-5 SB Ramps & Ortega (a)	San Juan Capistrano	No Project	.73	C	.85	D
		Project Alternative 1	.73	C	.85	D
		Project Alternative 2	.73	C	.85	D
		Project Alternative 3	.73	C	.85	D
21. I-5 NB Ramps & Ortega (a)	San Juan Capistrano	No Project	.72	C	.69	B
		Project Alternative 1	.72	C	.69	B
		Project Alternative 2	.72	C	.69	B
		Project Alternative 3	.72	C	.69	B
22. Rancho Viejo & Ortega	San Juan Capistrano	No Project	.76	C	.80	C
		Project Alternative 1	.76	C	.80	C
		Project Alternative 2	.76	C	.80	C
		Project Alternative 3	.76	C	.80	C
23. La Novia & Ortega	San Juan Capistrano	No Project	.72	C	.67	B
		Project Alternative 1	.73	C	.67	B
		Project Alternative 2	.73	C	.67	B
		Project Alternative 3	.74	C	.68	B
24. Antonio/La Pata & Ortega	San Juan Capistrano	No Project	.85	D	.59	A
		Project Alternative 1	.85	D	.60	A
		Project Alternative 2	.85	D	.60	A
		Project Alternative 3	.85	D	.61	B

Table 4-3 2035 Cumulative With SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
25. Cm Capistrano & Del Obispo (a)	San Juan Capistrano	No Project	.72	C	.78	C
		Project Alternative 1	.72	C	.78	C
		Project Alternative 2	.72	C	.78	C
		Project Alternative 3	.72	C	.78	C
26. Cm Capistrano San Juan Creek (a)	San Juan Capistrano	No Project	.58	A	.61	B
		Project Alternative 1	.58	A	.61	B
		Project Alternative 2	.58	A	.61	B
		Project Alternative 3	.58	A	.61	B
27. Cm Capistrano & I-5 SB Ramps (a)	San Juan Capistrano	No Project	.64	B	.69	B
		Project Alternative 1	.64	B	.69	B
		Project Alternative 2	.64	B	.69	B
		Project Alternative 3	.64	B	.69	B
28. Valle & San Juan Creek	San Juan Capistrano	No Project	.79	C	.90	D
		Project Alternative 1	.79	C	.90	D
		Project Alternative 2	.79	C	.90	D
		Project Alternative 3	.79	C	.90	D
29. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	No Project	.73	C	.64	B
		Project Alternative 1	.73	C	.64	B
		Project Alternative 2	.73	C	.64	B
		Project Alternative 3	.73	C	.64	B
30. La Novia & San Juan Creek	San Juan Capistrano	No Project	.51	A	.40	A
		Project Alternative 1	.51	A	.40	A
		Project Alternative 2	.51	A	.40	A
		Project Alternative 3	.51	A	.40	A
31. La Pata & Vista Montana	County	No Project	.69	B	.48	A
		Project Alternative 1	.69	B	.48	A
		Project Alternative 2	.69	B	.48	A
		Project Alternative 3	.69	B	.48	A
32. Avd La Pata & Cm Del Rio	San Clemente	No Project	.78	C	.71	C
		Project Alternative 1	.78	C	.71	C
		Project Alternative 2	.78	C	.71	C
		Project Alternative 3	.78	C	.71	C

Table 4-3 2035 Cumulative With SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
33. Avd La Pata & Avd Vista Hermosa	San Clemente	No Project	.62	B	.75	C
		Project Alternative 1	.62	B	.75	C
		Project Alternative 2	.62	B	.75	C
		Project Alternative 3	.62	B	.75	C
34. Avd La Pata & Avd Pico	San Clemente	No Project	.67	B	.84	D
		Project Alternative 1	.67	B	.84	D
		Project Alternative 2	.67	B	.84	D
		Project Alternative 3	.67	B	.84	D
35. Avd Vista Hermosa & Avd Pico	San Clemente	No Project	.50	A	.65	B
		Project Alternative 1	.50	A	.65	B
		Project Alternative 2	.50	A	.65	B
		Project Alternative 3	.50	A	.65	B
36. SR-241 SB Ramps & Chiquita Canyon	County	No Project	.47	A	.71	C
		Project Alternative 1	.50	A	.72	C
		Project Alternative 2	.50	A	.72	C
		Project Alternative 3	.50	A	.73	C
37. SR-241 NB Ramps & Grandeza	County	No Project	.59	A	.48	A
		Project Alternative 1	.62	B	.51	A
		Project Alternative 2	.62	B	.51	A
		Project Alternative 3	.63	B	.51	A
38. Legado & Grandeza	County	No Project	.52	A	.62	B
		Project Alternative 1	.53	A	.63	B
		Project Alternative 2	.53	A	.63	B
		Project Alternative 3	.54	A	.64	B
39. Antonio & Cow Camp	County	No Project	.73	C	.73	C
		Project Alternative 1	.74	C	.74	C
		Project Alternative 2	.74	C	.74	C
		Project Alternative 3	.74	C	.75	C
40. Chiquita Canyon & Cow Camp	County	No Project	.77	C	.79	C
		Project Alternative 1	.78	C	.80	C
		Project Alternative 2	.79	C	.80	C
		Project Alternative 3	.80	C	.81	D

Table 4-3 2035 Cumulative With SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
42. Legado & Cow Camp	County	No Project	.63	B	.67	B
		Project Alternative 1	.66	B	.68	B
		Project Alternative 2	.66	B	.68	B
		Project Alternative 3	.67	B	.69	B
43. Grandeza & Cow Camp	County	No Project	.54	A	.53	A
		Project Alternative 1	.55	A	.54	A
		Project Alternative 2	.55	A	.54	A
		Project Alternative 3	.55	A	.54	A
44. Ortega & Cow Camp	County	No Project	.69	B	.84	D
		Project Alternative 1	.69	B	.85	D
		Project Alternative 2	.69	B	.85	D
		Project Alternative 3	.69	B	.85	D
45. Chiquita Canyon & A Street	County	No Project	.56	A	.66	B
		Project Alternative 1	.58	A	.67	B
		Project Alternative 2	.58	A	.67	B
		Project Alternative 3	.59	A	.68	B
46. SR-241 SB Ramps & A Street	County	No Project	.32	A	.29	A
		Project Alternative 1	.32	A	.30	A
		Project Alternative 2	.32	A	.30	A
		Project Alternative 3	.33	A	.30	A
47. SR-241 NB Ramps & A Street	County	No Project	.21	A	.23	A
		Project Alternative 1	.22	A	.24	A
		Project Alternative 2	.22	A	.24	A
		Project Alternative 3	.23	A	.24	A
48. SR-241 SB Ramps & Avd Pico	San Clemente	No Project	.45	A	.81	D
		Project Alternative 1	.45	A	.82	D
		Project Alternative 2	.45	A	.82	D
		Project Alternative 3	.45	A	.82	D

Table 4-3 2035 Cumulative With SR-241 Extension Intersection LOS Summary (ICU Methodology) (continued)

Intersection	Jurisdiction	Scenario	AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
49. SR-241 NB Ramps & Avd Pico	San Clemente	No Project	.61	B	.54	A
		Project Alternative 1	.61	B	.54	A
		Project Alternative 2	.61	B	.54	A
		Project Alternative 3	.61	B	.54	A

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

Table 4-4 Alternative Existing Baseline Intersection LOS Summary (HCM Signalized Methodology)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
1. I-5 SB Ramps & Oso	No Project	10	A	19	B
	Project Alternative 1	10	A	19	B
	Project Alternative 2	10	A	19	B
	Project Alternative 3	10	A	19	B
2. I-5 NB Ramps & Oso	No Project	13	B	16	B
	Project Alternative 1	13	B	16	B
	Project Alternative 2	13	B	16	B
	Project Alternative 3	13	B	16	B
7. SR-241/Los Patrones SB & Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones)	No Project	12	B	13	B
	Project Alternative 1	12	B	13	B
	Project Alternative 2	13	B	13	B
	Project Alternative 3	13	B	13	B
7. SR-241/Los Patrones SB & Oso Pkwy (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	No Project	11	B	14	B
	Project Alternative 1	11	B	15	B
	Project Alternative 2	11	B	15	B
	Project Alternative 3	11	B	15	B
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones)	No Project	22	C	14	B
	Project Alternative 1	22	C	14	B
	Project Alternative 2	22	C	14	B
	Project Alternative 3	22	C	14	B
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	No Project	25	C	15	B
	Project Alternative 1	26	C	15	B
	Project Alternative 2	27	C	15	B
	Project Alternative 3	27	C	15	B
10. I-5 SB Ramps & Crown Valley (a)	No Project	19	B	33	C
	Project Alternative 1	19	B	33	C
	Project Alternative 2	19	B	33	C
	Project Alternative 3	19	B	33	C

Table 4-4 Alternative Existing Baseline Intersection LOS Summary (HCM Signalized Methodology) (continued)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
11. I-5 NB Ramps & Crown Valley (a)	No Project	11	B	11	B
	Project Alternative 1	11	B	11	B
	Project Alternative 2	11	B	11	B
	Project Alternative 3	11	B	11	B
18. Cm Capistrano & Ortega	No Project	12	B	12	B
	Project Alternative 1	12	B	12	B
	Project Alternative 2	12	B	12	B
	Project Alternative 3	12	B	12	B
19. Del Obispo & Ortega (a)	No Project	12	B	19	B
	Project Alternative 1	12	B	19	B
	Project Alternative 2	12	B	19	B
	Project Alternative 3	12	B	19	B
20. I-5 SB Ramps & Ortega (a)	No Project	17	B	17	B
	Project Alternative 1	17	B	17	B
	Project Alternative 2	17	B	17	B
	Project Alternative 3	17	B	17	B
21. I-5 NB Ramps & Ortega (a)	No Project	15	B	30	C
	Project Alternative 1	15	B	30	C
	Project Alternative 2	15	B	30	C
	Project Alternative 3	15	B	30	C
22. Rancho Viejo & Ortega	No Project	29	C	28	C
	Project Alternative 1	30	C	28	C
	Project Alternative 2	30	C	28	C
	Project Alternative 3	30	C	28	C
23. La Novia & Ortega	No Project	19	B	20	B
	Project Alternative 1	21	B	20	B
	Project Alternative 2	21	B	20	B
	Project Alternative 3	21	B	20	B

Table 4-4 Alternative Existing Baseline Intersection LOS Summary (HCM Signalized Methodology) (continued)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
24. Antonio/La Pata & Ortega	No Project	39	D	25	C
	Project Alternative 1	39	D	25	C
	Project Alternative 2	39	D	25	C
	Project Alternative 3	40	D	25	C
25. Cm Capistrano & Del Obispo (a)	No Project	32	C	32	C
	Project Alternative 1	32	C	32	C
	Project Alternative 2	32	C	32	C
	Project Alternative 3	32	C	32	C
26. Cm Capistrano San Juan Creek (a)	No Project	13	B	14	B
	Project Alternative 1	13	B	14	B
	Project Alternative 2	13	B	14	B
	Project Alternative 3	13	B	14	B
27. Cm Capistrano & I-5 SB Ramps (a)	No Project	16	B	16	B
	Project Alternative 1	16	B	16	B
	Project Alternative 2	16	B	16	B
	Project Alternative 3	16	B	16	B
28. Valle & San Juan Creek	No Project	14	B	14	B
	Project Alternative 1	14	B	14	B
	Project Alternative 2	14	B	14	B
	Project Alternative 3	14	B	14	B
29. Valle & La Novia/I-5 NB Ramps	No Project	17	B	17	B
	Project Alternative 1	17	B	17	B
	Project Alternative 2	17	B	17	B
	Project Alternative 3	17	B	17	B
30. La Novia & San Juan Creek	No Project	28	C	22	C
	Project Alternative 1	28	C	22	C
	Project Alternative 2	28	C	22	C
	Project Alternative 3	28	C	22	C

Table 4-4 Alternative Existing Baseline Intersection LOS Summary (HCM Signalized Methodology) (continued)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
44. Ortega & Cow Camp	No Project	23	C	29	C
	Project Alternative 1	23	C	30	C
	Project Alternative 2	23	C	30	C
	Project Alternative 3	23	C	30	C

Abbreviations: HCM – Highway Capacity Manual
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

Table 4-5 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
1. I-5 SB Ramps & Oso	No Project	12	B	19	B
	Project Alternative 1	12	B	19	B
	Project Alternative 2	12	B	19	B
	Project Alternative 3	12	B	19	B
2. I-5 NB Ramps & Oso	No Project	14	B	31	C
	Project Alternative 1	14	B	31	C
	Project Alternative 2	14	B	31	C
	Project Alternative 3	14	B	31	C
7. SR-241/Los Patrones SB & Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones)	No Project	13	B	14	B
	Project Alternative 1	13	B	14	B
	Project Alternative 2	13	B	14	B
	Project Alternative 3	13	B	14	B
7. SR-241/Los Patrones SB & Oso Pkwy (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	No Project	14	B	16	B
	Project Alternative 1	14	B	18	B
	Project Alternative 2	14	B	19	B
	Project Alternative 3	14	B	19	B
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes no connection between the SR-241 mainline and Los Patrones)	No Project	26	C	14	B
	Project Alternative 1	26	C	14	B
	Project Alternative 2	26	C	14	B
	Project Alternative 3	26	C	14	B
8. SR-241/Los Patrones NB & Oso Pkwy (Assumes construction of an Oso Parkway bridge and a direct connection between the SR-241 mainline and Los Patrones)	No Project	31	C	15	B
	Project Alternative 1	33	C	15	B
	Project Alternative 2	34	C	15	B
	Project Alternative 3	34	C	15	B
10. I-5 SB Ramps & Crown Valley (a)	No Project	19	B	30	C
	Project Alternative 1	19	B	30	C
	Project Alternative 2	19	B	30	C
	Project Alternative 3	19	B	30	C

Table 4-5 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology) (cont)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
11. I-5 NB Ramps & Crown Valley (a)	No Project	13	B	12	B
	Project Alternative 1	13	B	12	B
	Project Alternative 2	13	B	12	B
	Project Alternative 3	13	B	12	B
18. Cm Capistrano & Ortega	No Project	23	C	24	C
	Project Alternative 1	23	C	24	C
	Project Alternative 2	23	C	24	C
	Project Alternative 3	23	C	24	C
19. Del Obispo & Ortega (a)	No Project	41	D	34	C
	Project Alternative 1	41	D	34	C
	Project Alternative 2	41	D	34	C
	Project Alternative 3	41	D	34	C
20. I-5 SB Ramps & Ortega (a)	No Project	25	C	29	C
	Project Alternative 1	25	C	30	C
	Project Alternative 2	25	C	30	C
	Project Alternative 3	25	C	30	C
21. I-5 NB Ramps & Ortega (a)	No Project	22	C	34	C
	Project Alternative 1	23	C	34	C
	Project Alternative 2	23	C	34	C
	Project Alternative 3	23	C	34	C
22. Rancho Viejo & Ortega	No Project	43	D	34	C
	Project Alternative 1	45	D	34	C
	Project Alternative 2	45	D	34	C
	Project Alternative 3	45	D	35	C
23. La Novia & Ortega	No Project	17	B	19	B
	Project Alternative 1	18	B	19	B
	Project Alternative 2	18	B	19	B
	Project Alternative 3	18	B	20	B

Table 4-5 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology) (cont)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
24. Antonio/La Pata & Ortega	No Project	42	D	33	C
	Project Alternative 1	42	D	34	C
	Project Alternative 2	42	D	34	C
	Project Alternative 3	42	D	34	C
25. Cm Capistrano & Del Obispo (a)	No Project	35	C	46	D
	Project Alternative 1	35	C	46	D
	Project Alternative 2	35	C	46	D
	Project Alternative 3	35	C	46	D
26. Cm Capistrano San Juan Creek (a)	No Project	21	C	32	C
	Project Alternative 1	21	C	32	C
	Project Alternative 2	21	C	32	C
	Project Alternative 3	21	C	32	C
27. Cm Capistrano & I-5 SB Ramps (a)	No Project	20	B	21	C
	Project Alternative 1	20	B	21	C
	Project Alternative 2	20	B	21	C
	Project Alternative 3	20	B	21	C
28. Valle & San Juan Creek	No Project	16	B	22	C
	Project Alternative 1	16	B	22	C
	Project Alternative 2	16	B	22	C
	Project Alternative 3	16	B	22	C
29. Valle & La Novia/I-5 NB Ramps	No Project	26	C	21	C
	Project Alternative 1	26	C	21	C
	Project Alternative 2	26	C	21	C
	Project Alternative 3	26	C	21	C
30. La Novia & San Juan Creek	No Project	29	C	24	C
	Project Alternative 1	29	C	24	C
	Project Alternative 2	29	C	24	C
	Project Alternative 3	29	C	24	C

Table 4-5 2035 Cumulative Without SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology) (cont)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
44. Ortega & Cow Camp	No Project	25	C	43	D
	Project Alternative 1	26	C	43	D
	Project Alternative 2	26	C	43	D
	Project Alternative 3	26	C	43	D

Abbreviations: HCM – Highway Capacity Manual
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

Table 4-6 2035 Cumulative With SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
1. I-5 SB Ramps & Oso	No Project	14	B	18	B
	Project Alternative 1	14	B	18	B
	Project Alternative 2	14	B	18	B
	Project Alternative 3	14	B	18	B
2. I-5 NB Ramps & Oso	No Project	15	B	33	C
	Project Alternative 1	15	B	33	C
	Project Alternative 2	15	B	33	C
	Project Alternative 3	15	B	33	C
7. SR-241 SB & Oso Pkwy	No Project	9	A	9	A
	Project Alternative 1	9	A	9	A
	Project Alternative 2	9	A	9	A
	Project Alternative 3	9	A	9	A
8. SR-241 NB & Oso Pkwy	No Project	15	B	13	B
	Project Alternative 1	15	B	13	B
	Project Alternative 2	15	B	13	B
	Project Alternative 3	15	B	13	B
10. I-5 SB Ramps & Crown Valley (a)	No Project	20	B	29	C
	Project Alternative 1	20	B	30	C
	Project Alternative 2	20	B	30	C
	Project Alternative 3	20	B	30	C
11. I-5 NB Ramps & Crown Valley (a)	No Project	13	B	13	B
	Project Alternative 1	13	B	13	B
	Project Alternative 2	13	B	13	B
	Project Alternative 3	13	B	13	B
18. Cm Capistrano & Ortega	No Project	25	C	20	C
	Project Alternative 1	25	C	20	C
	Project Alternative 2	25	C	20	C
	Project Alternative 3	25	C	20	C

Table 4-6 2035 Cumulative With SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology) (continued)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
19. Del Obispo & Ortega (a)	No Project	38	D	32	C
	Project Alternative 1	39	D	32	C
	Project Alternative 2	39	D	32	C
	Project Alternative 3	39	D	32	C
20. I-5 SB Ramps & Ortega (a)	No Project	26	C	32	C
	Project Alternative 1	27	C	33	C
	Project Alternative 2	27	C	33	C
	Project Alternative 3	27	C	33	C
21. I-5 NB Ramps & Ortega (a)	No Project	27	C	35	C
	Project Alternative 1	28	C	35	C
	Project Alternative 2	28	C	35	C
	Project Alternative 3	28	C	35	C
22. Rancho Viejo & Ortega	No Project	38	D	37	D
	Project Alternative 1	39	D	37	D
	Project Alternative 2	39	D	37	D
	Project Alternative 3	40	D	38	D
23. La Novia & Ortega	No Project	18	B	21	C
	Project Alternative 1	18	B	22	C
	Project Alternative 2	18	B	22	C
	Project Alternative 3	19	B	23	C
24. Antonio/La Pata & Ortega	No Project	43	D	28	C
	Project Alternative 1	44	D	28	C
	Project Alternative 2	44	D	28	C
	Project Alternative 3	44	D	28	C
25. Cm Capistrano & Del Obispo (a)	No Project	34	C	42	D
	Project Alternative 1	34	C	42	D
	Project Alternative 2	34	C	42	D
	Project Alternative 3	34	C	42	D

Table 4-6 2035 Cumulative With SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology) (continued)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
26. Cm Capistrano San Juan Creek (a)	No Project	19	B	23	C
	Project Alternative 1	19	B	23	C
	Project Alternative 2	19	B	23	C
	Project Alternative 3	19	B	23	C
27. Cm Capistrano & I-5 SB Ramps (a)	No Project	19	B	21	C
	Project Alternative 1	19	B	21	C
	Project Alternative 2	19	B	21	C
	Project Alternative 3	19	B	21	C
28. Valle & San Juan Creek	No Project	16	B	23	C
	Project Alternative 1	16	B	23	C
	Project Alternative 2	16	B	23	C
	Project Alternative 3	16	B	23	C
29. Valle & La Novia/I-5 NB Ramps	No Project	26	C	22	C
	Project Alternative 1	26	C	22	C
	Project Alternative 2	26	C	22	C
	Project Alternative 3	26	C	22	C
30. La Novia & San Juan Creek	No Project	23	C	23	C
	Project Alternative 1	23	C	23	C
	Project Alternative 2	23	C	23	C
	Project Alternative 3	23	C	23	C
36. SR-241 SB Ramps & Chiquita Canyon	No Project	14	B	16	B
	Project Alternative 1	14	B	17	B
	Project Alternative 2	14	B	17	B
	Project Alternative 3	14	B	17	B
37. SR-241 NB Ramps & Grandeza	No Project	11	B	5	A
	Project Alternative 1	12	B	6	A
	Project Alternative 2	12	B	6	A
	Project Alternative 3	13	B	6	A

Table 4-6 2035 Cumulative With SR-241 Extension Intersection LOS Summary (HCM Signalized Methodology) (continued)

Intersection	Scenario	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
44. Ortega & Cow Camp	No Project	25	C	44	D
	Project Alternative 1	25	C	44	D
	Project Alternative 2	25	C	44	D
	Project Alternative 3	25	C	44	D
46. SR-241 SB Ramps & A Street	No Project	9	A	9	A
	Project Alternative 1	9	A	9	A
	Project Alternative 2	9	A	9	A
	Project Alternative 3	9	A	9	A
47. SR-241 NB Ramps & A Street	No Project	14	B	14	B
	Project Alternative 1	15	B	15	B
	Project Alternative 2	15	B	15	B
	Project Alternative 3	15	B	15	B
48. SR-241 SB Ramps & Avd Pico	No Project	7	A	22	C
	Project Alternative 1	7	A	23	C
	Project Alternative 2	7	A	23	C
	Project Alternative 3	7	A	23	C
49. SR-241 NB Ramps & Avd Pico	No Project	18	B	11	B
	Project Alternative 1	18	B	11	B
	Project Alternative 2	18	B	11	B
	Project Alternative 3	18	B	11	B

Abbreviations: HCM – Highway Capacity Manual
LOS – level of service
NB – northbound
SB – southbound

(a) LOS E is acceptable at this location.

Table 4-7 Alternative Existing Baseline Freeway/Tollway Ramp LOS Summary

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Oso Parkway	SB Direct On	No Project	1	1,500	510	.34	A	520	.35	A
		Project Alternative 1	1	1,500	510	.34	A	520	.35	A
		Project Alternative 2	1	1,500	510	.34	A	520	.35	A
		Project Alternative 3	1	1,500	510	.34	A	520	.35	A
	SB Loop On	No Project	1	1,080	650	.60	A	470	.44	A
		Project Alternative 1	1	1,080	650	.60	A	470	.44	A
		Project Alternative 2	1	1,080	650	.60	A	470	.44	A
		Project Alternative 3	1	1,080	650	.60	A	470	.44	A
	NB Direct On	No Project	1	1,500	1,370	.91	E	910	.61	B
		Project Alternative 1	1	1,500	1,380	.92	E	920	.61	B
		Project Alternative 2	1	1,500	1,380	.92	E	920	.61	B
		Project Alternative 3	1	1,500	1,380	.92	E	920	.61	B
	NB Loop On	No Project	1	1,500	410	.27	A	340	.23	A
		Project Alternative 1	1	1,500	410	.27	A	340	.23	A
		Project Alternative 2	1	1,500	410	.27	A	340	.23	A
		Project Alternative 3	1	1,500	410	.27	A	340	.23	A
	SB Off	No Project	2	2,250	850	.38	A	1,560	.69	B
		Project Alternative 1	2	2,250	850	.38	A	1,570	.70	B
		Project Alternative 2	2	2,250	850	.38	A	1,570	.70	B
		Project Alternative 3	2	2,250	850	.38	A	1,570	.70	B
	NB Off	No Project	2	2,250	800	.36	A	1,030	.46	A
		Project Alternative 1	2	2,250	800	.36	A	1,030	.46	A
		Project Alternative 2	2	2,250	800	.36	A	1,030	.46	A
		Project Alternative 3	2	2,250	800	.36	A	1,030	.46	A
I-5 at Crown Valley Parkway	SB On	No Project	1	1,500	570	.38	A	800	.53	A
		Project Alternative 1	1	1,500	570	.38	A	800	.53	A
		Project Alternative 2	1	1,500	570	.38	A	800	.53	A
		Project Alternative 3	1	1,500	570	.38	A	800	.53	A
	NB Direct On	No Project	1	1,500	1,200	.80	C	1,510	1.01	F
		Project Alternative 1	1	1,500	1,210	.81	D	1,520	1.01	F
		Project Alternative 2	1	1,500	1,210	.81	D	1,520	1.01	F
		Project Alternative 3	1	1,500	1,210	.81	D	1,520	1.01	F

Table 4-7 Alternative Existing Baseline Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Crown Valley Parkway (continued)	NB Loop On	No Project	1	1,500	590	.39	A	700	.47	A
		Project Alternative 1	1	1,500	590	.39	A	700	.47	A
		Project Alternative 2	1	1,500	590	.39	A	700	.47	A
		Project Alternative 3	1	1,500	590	.39	A	700	.47	A
	SB Off	No Project	2	2,250	2,080	.92	E	2,110	.94	E
		Project Alternative 1	2	2,250	2,080	.92	E	2,120	.94	E
		Project Alternative 2	2	2,250	2,080	.92	E	2,120	.94	E
		Project Alternative 3	2	2,250	2,080	.92	E	2,120	.94	E
	NB Off	No Project	1	1,500	680	.45	A	640	.43	A
		Project Alternative 1	1	1,500	680	.45	A	640	.43	A
		Project Alternative 2	1	1,500	680	.45	A	640	.43	A
		Project Alternative 3	1	1,500	680	.45	A	640	.43	A
I-5 at Ortega Highway	SB On	No Project	1	1,500	320	.21	A	220	.15	A
		Project Alternative 1	1	1,500	320	.21	A	220	.15	A
		Project Alternative 2	1	1,500	320	.21	A	220	.15	A
		Project Alternative 3	1	1,500	320	.21	A	220	.15	A
	NB Direct On	No Project	1	1,500	1,410	.94	E	1,000	.67	B
		Project Alternative 1	1	1,500	1,420	.95	E	1,000	.67	B
		Project Alternative 2	1	1,500	1,420	.95	E	1,000	.67	B
		Project Alternative 3	1	1,500	1,430	.95	E	1,010	.67	B
	NB Loop On	No Project	1	1,500	680	.45	A	800	.53	A
		Project Alternative 1	1	1,500	680	.45	A	800	.53	A
		Project Alternative 2	1	1,500	680	.45	A	800	.53	A
		Project Alternative 3	1	1,500	680	.45	A	800	.53	A
	SB Off	No Project	2	2,900	1,480	.51	A	1,680	.58	A
		Project Alternative 1	2	2,900	1,480	.51	A	1,690	.58	A
		Project Alternative 2	2	2,900	1,480	.51	A	1,690	.58	A
		Project Alternative 3	2	2,900	1,480	.51	A	1,700	.59	A
	NB Off	No Project	1	1,500	620	.41	A	500	.33	A
		Project Alternative 1	1	1,500	620	.41	A	500	.33	A
		Project Alternative 2	1	1,500	620	.41	A	500	.33	A
		Project Alternative 3	1	1,500	620	.41	A	500	.33	A

Table 4-7 Alternative Existing Baseline Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano	SB On	No Project	1	1,500	460	.31	A	550	.37	A
		Project Alternative 1	1	1,500	460	.31	A	550	.37	A
		Project Alternative 2	1	1,500	460	.31	A	550	.37	A
		Project Alternative 3	1	1,500	460	.31	A	550	.37	A
	NB On	No Project	1	1,500	440	.29	A	360	.24	A
		Project Alternative 1	1	1,500	440	.29	A	360	.24	A
		Project Alternative 2	1	1,500	440	.29	A	360	.24	A
		Project Alternative 3	1	1,500	440	.29	A	360	.24	A
	SB Off	No Project	2	2,250	930	.41	A	1,130	.50	A
		Project Alternative 1	2	2,250	930	.41	A	1,130	.50	A
		Project Alternative 2	2	2,250	930	.41	A	1,130	.50	A
		Project Alternative 3	2	2,250	930	.41	A	1,130	.50	A
	NB Off	No Project	1	1,500	410	.27	A	510	.34	A
		Project Alternative 1	1	1,500	410	.27	A	510	.34	A
		Project Alternative 2	1	1,500	410	.27	A	510	.34	A
		Project Alternative 3	1	1,500	410	.27	A	510	.34	A
SR-241 at Oso Parkway	NB On	No Project	2	3,000	1,400	.47	A	530	.18	A
		Project Alternative 1	2	3,000	1,410	.47	A	540	.18	A
		Project Alternative 2	2	3,000	1,410	.47	A	540	.18	A
		Project Alternative 3	2	3,000	1,420	.47	A	540	.18	A
	SB Off	No Project	2	3,000	570	.19	A	1,350	.45	A
		Project Alternative 1	2	3,000	580	.19	A	1,360	.45	A
		Project Alternative 2	2	3,000	580	.19	A	1,360	.45	A
		Project Alternative 3	2	3,000	580	.19	A	1,370	.46	A

Abbreviations: LOS – level of service
V/C – volume/capacity ratio
NB – northbound
SB – southbound

Denotes a peak hour deficiency.

Table 4-8 2035 Cumulative Without SR-241 Extension Freeway/Tollway Ramp LOS Summary

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Oso Parkway	SB Direct On	No Project	1	1,500	400	.27	A	520	.35	A
		Project Alternative 1	1	1,500	400	.27	A	520	.35	A
		Project Alternative 2	1	1,500	400	.27	A	520	.35	A
		Project Alternative 3	1	1,500	400	.27	A	520	.35	A
	SB Loop On	No Project	1	1,080	720	.67	B	660	.61	B
		Project Alternative 1	1	1,080	720	.67	B	660	.61	B
		Project Alternative 2	1	1,080	720	.67	B	660	.61	B
		Project Alternative 3	1	1,080	720	.67	B	660	.61	B
	NB Direct On	No Project	1	1,500	1,380	.92	E	710	.47	A
		Project Alternative 1	1	1,500	1,390	.93	E	720	.48	A
		Project Alternative 2	1	1,500	1,390	.93	E	720	.48	A
		Project Alternative 3	1	1,500	1,390	.93	E	720	.48	A
	NB Loop On	No Project	1	1,500	500	.33	A	390	.26	A
		Project Alternative 1	1	1,500	500	.33	A	390	.26	A
		Project Alternative 2	1	1,500	500	.33	A	390	.26	A
		Project Alternative 3	1	1,500	500	.33	A	390	.26	A
	SB Off	No Project	2	2,250	1,340	.60	A	1,710	.76	C
		Project Alternative 1	2	2,250	1,340	.60	A	1,720	.76	C
		Project Alternative 2	2	2,250	1,340	.60	A	1,720	.76	C
		Project Alternative 3	2	2,250	1,340	.60	A	1,720	.76	C
	NB Off	No Project	2	2,250	790	.35	A	1,200	.53	A
		Project Alternative 1	2	2,250	790	.35	A	1,200	.53	A
		Project Alternative 2	2	2,250	790	.35	A	1,200	.53	A
		Project Alternative 3	2	2,250	790	.35	A	1,200	.53	A
I-5 at Crown Valley Parkway	SB On	No Project	1	1,500	600	.40	A	810	.54	A
		Project Alternative 1	1	1,500	600	.40	A	810	.54	A
		Project Alternative 2	1	1,500	600	.40	A	810	.54	A
		Project Alternative 3	1	1,500	600	.40	A	810	.54	A
	NB Direct On	No Project	1	1,500	1,210	.81	D	1,480	.99	E
		Project Alternative 1	1	1,500	1,220	.81	D	1,490	.99	E
		Project Alternative 2	1	1,500	1,220	.81	D	1,490	.99	E
		Project Alternative 3	1	1,500	1,220	.81	D	1,490	.99	E

Table 4-8 2035 Cumulative Without SR-241 Extension Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Crown Valley Parkway (continued)	NB Loop On	No Project	1	1,500	760	.51	A	510	.34	A
		Project Alternative 1	1	1,500	760	.51	A	510	.34	A
		Project Alternative 2	1	1,500	760	.51	A	510	.34	A
		Project Alternative 3	1	1,500	760	.51	A	510	.34	A
	SB Off	No Project	2	3,000	1,890	.63	B	2,440	.81	D
		Project Alternative 1	2	3,000	1,890	.63	B	2,450	.82	D
		Project Alternative 2	2	3,000	1,890	.63	B	2,450	.82	D
		Project Alternative 3	2	3,000	1,890	.63	B	2,450	.82	D
	NB Off	No Project	1	1,500	870	.58	A	680	.45	A
		Project Alternative 1	1	1,500	870	.58	A	680	.45	A
		Project Alternative 2	1	1,500	870	.58	A	680	.45	A
		Project Alternative 3	1	1,500	870	.58	A	680	.45	A
I-5 at Ortega Highway	SB On	No Project	1	1,500	1,000	.67	B	1,090	.73	C
		Project Alternative 1	1	1,500	1,000	.67	B	1,090	.73	C
		Project Alternative 2	1	1,500	1,000	.67	B	1,090	.73	C
		Project Alternative 3	1	1,500	1,000	.67	B	1,090	.73	C
	NB Direct On	No Project	1	1,500	670	.45	A	590	.39	A
		Project Alternative 1	1	1,500	680	.45	A	590	.39	A
		Project Alternative 2	1	1,500	680	.45	A	590	.39	A
		Project Alternative 3	1	1,500	690	.46	A	600	.40	A
	NB Loop On	No Project	1	1,500	700	.47	A	690	.46	A
		Project Alternative 1	1	1,500	700	.47	A	690	.46	A
		Project Alternative 2	1	1,500	700	.47	A	690	.46	A
		Project Alternative 3	1	1,500	700	.47	A	690	.46	A
	SB Off	No Project	2	2,900	1,770	.61	B	2,010	.69	B
		Project Alternative 1	2	2,900	1,770	.61	B	2,020	.70	B
		Project Alternative 2	2	2,900	1,770	.61	B	2,020	.70	B
		Project Alternative 3	2	2,900	1,770	.61	B	2,030	.70	B
	NB Off	No Project	1	1,500	1,110	.74	C	880	.59	A
		Project Alternative 1	1	1,500	1,110	.74	C	880	.59	A
		Project Alternative 2	1	1,500	1,110	.74	C	880	.59	A
		Project Alternative 3	1	1,500	1,110	.74	C	880	.59	A

Table 4-8 2035 Cumulative Without SR-241 Extension Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano	SB On	No Project	1	1,500	610	.41	A	650	.43	A
		Project Alternative 1	1	1,500	610	.41	A	650	.43	A
		Project Alternative 2	1	1,500	610	.41	A	650	.43	A
		Project Alternative 3	1	1,500	610	.41	A	650	.43	A
	NB On	No Project	1	1,500	890	.59	A	600	.40	A
		Project Alternative 1	1	1,500	890	.59	A	600	.40	A
		Project Alternative 2	1	1,500	890	.59	A	600	.40	A
		Project Alternative 3	1	1,500	890	.59	A	600	.40	A
	SB Off	No Project	2	2,250	930	.41	A	1,200	.53	A
		Project Alternative 1	2	2,250	930	.41	A	1,200	.53	A
		Project Alternative 2	2	2,250	930	.41	A	1,200	.53	A
		Project Alternative 3	2	2,250	930	.41	A	1,200	.53	A
	NB Off	No Project	1	1,500	520	.35	A	520	.35	A
		Project Alternative 1	1	1,500	520	.35	A	520	.35	A
		Project Alternative 2	1	1,500	520	.35	A	520	.35	A
		Project Alternative 3	1	1,500	520	.35	A	520	.35	A
SR-241 at Oso Parkway	NB On	No Project	2	3,000	1,780	.59	A	700	.23	A
		Project Alternative 1	2	3,000	1,790	.60	A	710	.24	A
		Project Alternative 2	2	3,000	1,790	.60	A	710	.24	A
		Project Alternative 3	2	3,000	1,800	.60	A	710	.24	A
	SB Off	No Project	2	3,000	680	.23	A	1,720	.57	A
		Project Alternative 1	2	3,000	690	.23	A	1,730	.58	A
		Project Alternative 2	2	3,000	690	.23	A	1,730	.58	A
		Project Alternative 3	2	3,000	690	.23	A	1,740	.58	A

Abbreviations: LOS – level of service
V/C – volume/capacity ratio
NB – northbound
SB – southbound

Table 4-9 2035 Cumulative With SR-241 Extension Freeway/Tollway Ramp LOS Summary

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Oso Parkway	SB Direct On	No Project	1	1,500	400	.27	A	600	.40	A
		Project Alternative 1	1	1,500	400	.27	A	600	.40	A
		Project Alternative 2	1	1,500	400	.27	A	600	.40	A
		Project Alternative 3	1	1,500	400	.27	A	600	.40	A
	SB Loop On	No Project	1	1,080	740	.69	B	610	.56	A
		Project Alternative 1	1	1,080	740	.69	B	610	.56	A
		Project Alternative 2	1	1,080	740	.69	B	610	.56	A
		Project Alternative 3	1	1,080	740	.69	B	610	.56	A
	NB Direct On	No Project	1	1,500	1,320	.88	D	650	.43	A
		Project Alternative 1	1	1,500	1,330	.89	D	650	.43	A
		Project Alternative 2	1	1,500	1,330	.89	D	650	.43	A
		Project Alternative 3	1	1,500	1,330	.89	D	650	.43	A
	NB Loop On	No Project	1	1,500	480	.32	A	400	.27	A
		Project Alternative 1	1	1,500	480	.32	A	400	.27	A
		Project Alternative 2	1	1,500	480	.32	A	400	.27	A
		Project Alternative 3	1	1,500	480	.32	A	400	.27	A
	SB Off	No Project	2	2,250	1,230	.55	A	1,640	.73	C
		Project Alternative 1	2	2,250	1,230	.55	A	1,650	.73	C
		Project Alternative 2	2	2,250	1,230	.55	A	1,650	.73	C
		Project Alternative 3	2	2,250	1,230	.55	A	1,650	.73	C
	NB Off	No Project	2	2,250	820	.36	A	1,190	.53	A
		Project Alternative 1	2	2,250	820	.36	A	1,190	.53	A
		Project Alternative 2	2	2,250	820	.36	A	1,190	.53	A
		Project Alternative 3	2	2,250	820	.36	A	1,190	.53	A
I-5 at Crown Valley Parkway	SB On	No Project	1	1,500	610	.41	A	820	.55	A
		Project Alternative 1	1	1,500	610	.41	A	820	.55	A
		Project Alternative 2	1	1,500	610	.41	A	820	.55	A
		Project Alternative 3	1	1,500	610	.41	A	820	.55	A
	NB Direct On	No Project	1	1,500	1,300	.87	D	1,560	1.04	F
		Project Alternative 1	1	1,500	1,310	.87	D	1,560	1.04	F
		Project Alternative 2	1	1,500	1,310	.87	D	1,560	1.04	F
		Project Alternative 3	1	1,500	1,310	.87	D	1,560	1.04	F

Table 4-9 2035 Cumulative With SR-241 Extension Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Crown Valley Parkway (continued)	NB Loop On	No Project	1	1,500	760	.51	A	580	.39	A
		Project Alternative 1	1	1,500	760	.51	A	580	.39	A
		Project Alternative 2	1	1,500	760	.51	A	580	.39	A
		Project Alternative 3	1	1,500	760	.51	A	580	.39	A
	SB Off	No Project	2	3,000	2,030	.68	B	2,560	.85	D
		Project Alternative 1	2	3,000	2,030	.68	B	2,570	.86	D
		Project Alternative 2	2	3,000	2,030	.68	B	2,570	.86	D
		Project Alternative 3	2	3,000	2,030	.68	B	2,570	.86	D
	NB Off	No Project	1	1,500	880	.59	A	690	.46	A
		Project Alternative 1	1	1,500	880	.59	A	690	.46	A
		Project Alternative 2	1	1,500	880	.59	A	690	.46	A
		Project Alternative 3	1	1,500	880	.59	A	690	.46	A
I-5 at Ortega Highway	SB On	No Project	1	1,500	990	.66	B	1,030	.69	B
		Project Alternative 1	1	1,500	990	.66	B	1,030	.69	B
		Project Alternative 2	1	1,500	990	.66	B	1,030	.69	B
		Project Alternative 3	1	1,500	990	.66	B	1,030	.69	B
	NB Direct On	No Project	1	1,500	810	.54	A	760	.51	A
		Project Alternative 1	1	1,500	820	.55	A	760	.51	A
		Project Alternative 2	1	1,500	820	.55	A	760	.51	A
		Project Alternative 3	1	1,500	830	.55	A	770	.51	A
	NB Loop On	No Project	1	1,500	780	.52	A	750	.50	A
		Project Alternative 1	1	1,500	780	.52	A	750	.50	A
		Project Alternative 2	1	1,500	780	.52	A	750	.50	A
		Project Alternative 3	1	1,500	780	.52	A	750	.50	A
	SB Off	No Project	2	2,900	1,970	.68	B	2,220	.77	C
		Project Alternative 1	2	2,900	1,970	.68	B	2,230	.77	C
		Project Alternative 2	2	2,900	1,970	.68	B	2,230	.77	C
		Project Alternative 3	2	2,900	1,970	.68	B	2,240	.77	C
	NB Off	No Project	1	1,500	1,030	.69	B	870	.58	A
		Project Alternative 1	1	1,500	1,030	.69	B	870	.58	A
		Project Alternative 2	1	1,500	1,030	.69	B	870	.58	A
		Project Alternative 3	1	1,500	1,030	.69	B	870	.58	A

Table 4-9 2035 Cumulative With SR-241 Extension Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano	SB On	No Project	1	1,500	610	.41	A	650	.43	A
		Project Alternative 1	1	1,500	610	.41	A	650	.43	A
		Project Alternative 2	1	1,500	610	.41	A	650	.43	A
		Project Alternative 3	1	1,500	610	.41	A	650	.43	A
	NB On	No Project	1	1,500	910	.61	B	650	.43	A
		Project Alternative 1	1	1,500	910	.61	B	650	.43	A
		Project Alternative 2	1	1,500	910	.61	B	650	.43	A
		Project Alternative 3	1	1,500	910	.61	B	650	.43	A
	SB Off	No Project	2	2,250	990	.44	A	1,400	.62	B
		Project Alternative 1	2	2,250	990	.44	A	1,400	.62	B
		Project Alternative 2	2	2,250	990	.44	A	1,400	.62	B
		Project Alternative 3	2	2,250	990	.44	A	1,400	.62	B
	NB Off	No Project	1	1,500	510	.34	A	540	.36	A
		Project Alternative 1	1	1,500	510	.34	A	540	.36	A
		Project Alternative 2	1	1,500	510	.34	A	540	.36	A
		Project Alternative 3	1	1,500	510	.34	A	540	.36	A
SR-241 at Oso Parkway	SB On	No Project	1	1,500	400	.27	A	680	.45	A
		Project Alternative 1	1	1,500	410	.27	A	710	.47	A
		Project Alternative 2	1	1,500	410	.27	A	720	.48	A
		Project Alternative 3	1	1,500	410	.27	A	730	.49	A
	NB On	No Project	1	1,500	400	.27	A	120	.08	A
		Project Alternative 1	1	1,500	400	.27	A	120	.08	A
		Project Alternative 2	1	1,500	400	.27	A	120	.08	A
		Project Alternative 3	1	1,500	400	.27	A	120	.08	A
	SB Off	No Project	1	1,500	130	.09	A	240	.16	A
		Project Alternative 1	1	1,500	130	.09	A	240	.16	A
		Project Alternative 2	1	1,500	130	.09	A	240	.16	A
		Project Alternative 3	1	1,500	130	.09	A	240	.16	A
	NB Off	No Project	1	1,500	470	.31	A	550	.37	A
		Project Alternative 1	1	1,500	500	.33	A	570	.38	A
		Project Alternative 2	1	1,500	510	.34	A	570	.38	A
		Project Alternative 3	1	1,500	520	.35	A	580	.39	A

Table 4-9 2035 Cumulative With SR-241 Extension Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 at Chiquita Canyon Road/ Grandeza Drive	NB On	No Project	1	1,500	920	.61	B	740	.49	A
		Project Alternative 1	1	1,500	960	.64	B	770	.51	A
		Project Alternative 2	1	1,500	970	.65	B	770	.51	A
		Project Alternative 3	1	1,500	990	.66	B	780	.52	A
	SB Off	No Project	1	1,500	450	.30	A	1,150	.77	C
		Project Alternative 1	1	1,500	460	.31	A	1,170	.78	C
		Project Alternative 2	1	1,500	460	.31	A	1,170	.78	C
		Project Alternative 3	1	1,500	460	.31	A	1,190	.79	C
SR-241 at A Street	SB On	No Project	1	1,500	180	.12	A	160	.11	A
		Project Alternative 1	1	1,500	180	.12	A	160	.11	A
		Project Alternative 2	1	1,500	180	.12	A	160	.11	A
		Project Alternative 3	1	1,500	180	.12	A	160	.11	A
	NB On	No Project	1	1,500	190	.13	A	190	.13	A
		Project Alternative 1	1	1,500	210	.14	A	200	.13	A
		Project Alternative 2	1	1,500	210	.14	A	200	.13	A
		Project Alternative 3	1	1,500	220	.15	A	200	.13	A
	SB Off	No Project	1	1,500	300	.20	A	230	.15	A
		Project Alternative 1	1	1,500	310	.21	A	250	.17	A
		Project Alternative 2	1	1,500	310	.21	A	250	.17	A
		Project Alternative 3	1	1,500	310	.21	A	260	.17	A
	NB Off	No Project	1	1,500	90	.06	A	120	.08	A
		Project Alternative 1	1	1,500	90	.06	A	120	.08	A
		Project Alternative 2	1	1,500	90	.06	A	120	.08	A
		Project Alternative 3	1	1,500	90	.06	A	120	.08	A
SR-241 at Avenida Pico	SB On	No Project	1	1,500	390	.26	A	900	.60	A
		Project Alternative 1	1	1,500	390	.26	A	900	.60	A
		Project Alternative 2	1	1,500	390	.26	A	900	.60	A
		Project Alternative 3	1	1,500	390	.26	A	900	.60	A
	NB On	No Project	1	1,500	750	.50	A	920	.61	B
		Project Alternative 1	1	1,500	760	.51	A	920	.61	B
		Project Alternative 2	1	1,500	760	.51	A	920	.61	B
		Project Alternative 3	1	1,500	760	.51	A	920	.61	B

Table 4-9 2035 Cumulative With SR-241 Extension Freeway/Tollway Ramp LOS Summary (continued)

Interchange	Ramp	Scenario	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 at Avenida Pico (continued)	SB Off	No Project	1	1,500	610	.41	A	750	.50	A
		Project Alternative 1	1	1,500	610	.41	A	760	.51	A
		Project Alternative 2	1	1,500	610	.41	A	760	.51	A
		Project Alternative 3	1	1,500	610	.41	A	760	.51	A
	NB Off	No Project	1	1,500	550	.37	A	480	.32	A
		Project Alternative 1	1	1,500	550	.37	A	480	.32	A
		Project Alternative 2	1	1,500	550	.37	A	480	.32	A
		Project Alternative 3	1	1,500	550	.37	A	480	.32	A

Abbreviations: LOS – level of service
V/C – volume/capacity ratio
NB – northbound
SB – southbound

Denotes a peak hour deficiency.

Table 4-10 Alternative Existing Baseline Freeway/Tollway Mainline LOS Summary

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Oso Parkway	No Project	Northbound	4+1H	9,600	8,260	.86	D	8,050	.84	D
		Southbound	4+1H	9,600	7,030	.73	D	8,520	.89	D
	Project Alternative 1	Northbound	4+1H	9,600	8,280	.86	D	8,060	.84	D
		Southbound	4+1H	9,600	7,030	.73	D	8,540	.89	D
	Project Alternative 2	Northbound	4+1H	9,600	8,280	.86	D	8,060	.84	D
		Southbound	4+1H	9,600	7,030	.73	D	8,540	.89	D
	Project Alternative 3	Northbound	4+1H	9,600	8,290	.86	D	8,070	.84	D
		Southbound	4+1H	9,600	7,030	.73	D	8,550	.89	D
I-5 north of Crown Valley Parkway	No Project	Northbound	4+1H	9,600	7,250	.76	D	7,820	.81	D
		Southbound	4+1H	9,600	7,330	.76	D	7,950	.83	D
	Project Alternative 1	Northbound	4+1H	9,600	7,260	.76	D	7,830	.82	D
		Southbound	4+1H	9,600	7,330	.76	D	7,960	.83	D
	Project Alternative 2	Northbound	4+1H	9,600	7,260	.76	D	7,830	.82	D
		Southbound	4+1H	9,600	7,330	.76	D	7,960	.83	D
	Project Alternative 3	Northbound	4+1H	9,600	7,270	.76	D	7,830	.82	D
		Southbound	4+1H	9,600	7,330	.76	D	7,970	.83	D
I-5 south of Crown Valley Parkway	No Project	Northbound	4+1H	9,600	5,860	.61	C	6,080	.63	C
		Southbound	4+1H	9,600	5,730	.60	C	6,360	.66	C
	Project Alternative 1	Northbound	4+1H	9,600	5,870	.61	C	6,080	.63	C
		Southbound	4+1H	9,600	5,730	.60	C	6,370	.66	C
	Project Alternative 2	Northbound	4+1H	9,600	5,870	.61	C	6,080	.63	C
		Southbound	4+1H	9,600	5,730	.60	C	6,370	.66	C
	Project Alternative 3	Northbound	4+1H	9,600	5,870	.61	C	6,080	.63	C
		Southbound	4+1H	9,600	5,730	.60	C	6,370	.66	C
I-5 north of Junipero Serra Road	No Project	Northbound	5+1H	11,600	9,480	.82	D	8,080	.70	C
		Southbound	5+1H	11,600	7,340	.63	C	9,220	.79	D
	Project Alternative 1	Northbound	5+1H	11,600	9,490	.82	D	8,090	.70	C
		Southbound	5+1H	11,600	7,340	.63	C	9,230	.80	D
	Project Alternative 2	Northbound	5+1H	11,600	9,490	.82	D	8,090	.70	C
		Southbound	5+1H	11,600	7,340	.63	C	9,230	.80	D
	Project Alternative 3	Northbound	5+1H	11,600	9,500	.82	D	8,090	.70	C
		Southbound	5+1H	11,600	7,340	.63	C	9,240	.80	D

Table 4-10 Alternative Existing Baseline Freeway/Tollway Mainline LOS Summary (continued)

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Ortega Highway	No Project	Northbound	5+1H	11,600	9,400	.81	D	7,560	.65	C
		Southbound	5+1H	11,600	6,710	.58	C	8,770	.76	D
	Project Alternative 1	Northbound	5+1H	11,600	9,410	.81	D	7,570	.65	C
		Southbound	5+1H	11,600	6,710	.58	C	8,780	.76	D
	Project Alternative 2	Northbound	5+1H	11,600	9,410	.81	D	7,570	.65	C
		Southbound	5+1H	11,600	6,710	.58	C	8,780	.76	D
	Project Alternative 3	Northbound	5+1H	11,600	9,420	.81	D	7,570	.65	C
		Southbound	5+1H	11,600	6,710	.58	C	8,790	.76	D
I-5 south of Ortega Highway	No Project	Northbound	4+1H	9,600	7,930	.83	D	6,250	.65	C
		Southbound	4+1H	9,600	5,560	.58	C	7,300	.76	D
	Project Alternative 1	Northbound	4+1H	9,600	7,930	.83	D	6,250	.65	C
		Southbound	4+1H	9,600	5,560	.58	C	7,300	.76	D
	Project Alternative 2	Northbound	4+1H	9,600	7,930	.83	D	6,250	.65	C
		Southbound	4+1H	9,600	5,560	.58	C	7,300	.76	D
	Project Alternative 3	Northbound	4+1H	9,600	7,930	.83	D	6,250	.65	C
		Southbound	4+1H	9,600	5,560	.58	C	7,300	.76	D
I-5 south of Camino Capistrano	No Project	Northbound	4+1H	9,600	7,850	.82	D	6,450	.67	C
		Southbound	5	10,000	5,030	.50	B	6,820	.68	C
	Project Alternative 1	Northbound	4+1H	9,600	7,850	.82	D	6,450	.67	C
		Southbound	5	10,000	5,030	.50	B	6,820	.68	C
	Project Alternative 2	Northbound	4+1H	9,600	7,850	.82	D	6,450	.67	C
		Southbound	5	10,000	5,030	.50	B	6,820	.68	C
	Project Alternative 3	Northbound	4+1H	9,600	7,850	.82	D	6,450	.67	C
		Southbound	5	10,000	5,030	.50	B	6,820	.68	C
SR-73 north of I-5	No Project	Northbound	3	6,000	3,200	.53	C	2,040	.34	B
		Southbound	3	6,000	1,480	.25	A	3,060	.51	C
	Project Alternative 1	Northbound	3	6,000	3,210	.54	C	2,050	.34	B
		Southbound	3	6,000	1,480	.25	A	3,070	.51	C
	Project Alternative 2	Northbound	3	6,000	3,210	.54	C	2,050	.34	B
		Southbound	3	6,000	1,480	.25	A	3,070	.51	C
	Project Alternative 3	Northbound	3	6,000	3,210	.54	C	2,050	.34	B
		Southbound	3	6,000	1,480	.25	A	3,070	.51	C

Table 4-10 Alternative Existing Baseline Freeway/Tollway Mainline LOS Summary (continued)

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 north of Oso Parkway	No Project	Northbound	2	4,000	1,400	.35	B	530	.13	A
		Southbound	2	4,000	570	.14	A	1,350	.34	B
	Project Alternative 1	Northbound	2	4,000	1,410	.35	B	540	.14	A
		Southbound	2	4,000	580	.15	A	1,360	.34	B
	Project Alternative 2	Northbound	2	4,000	1,410	.35	B	540	.14	A
		Southbound	2	4,000	580	.15	A	1,360	.34	B
	Project Alternative 3	Northbound	2	4,000	1,420	.36	B	540	.14	A
		Southbound	2	4,000	580	.15	A	1,370	.34	B

Abbreviations: H – high-occupancy vehicle lane
LOS – level of service
V/C – volume/capacity ratio

Table 4-11 2035 Cumulative Without SR-241 Extension Freeway/Tollway Mainline LOS Summary

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Oso Parkway	No Project	Northbound	5+1H	11,600	10,820	.93	E	10,510	.91	E
		Southbound	5+1H	11,600	9,200	.79	D	11,380	.98	E
	Project Alternative 1	Northbound	5+1H	11,600	10,840	.93	E	10,520	.91	E
		Southbound	5+1H	11,600	9,200	.79	D	11,400	.98	E
	Project Alternative 2	Northbound	5+1H	11,600	10,840	.93	E	10,520	.91	E
		Southbound	5+1H	11,600	9,200	.79	D	11,400	.98	E
	Project Alternative 3	Northbound	5+1H	11,600	10,850	.94	E	10,530	.91	E
		Southbound	5+1H	11,600	9,200	.79	D	11,410	.98	E
I-5 north of Crown Valley Parkway	No Project	Northbound	5+1H	11,600	9,240	.80	D	9,910	.85	D
		Southbound	5+1H	11,600	9,500	.82	D	10,470	.90	E
	Project Alternative 1	Northbound	5+1H	11,600	9,250	.80	D	9,920	.86	D
		Southbound	5+1H	11,600	9,500	.82	D	10,480	.90	E
	Project Alternative 2	Northbound	5+1H	11,600	9,250	.80	D	9,920	.86	D
		Southbound	5+1H	11,600	9,500	.82	D	10,480	.90	E
	Project Alternative 3	Northbound	5+1H	11,600	9,260	.80	D	9,920	.86	D
		Southbound	5+1H	11,600	9,500	.82	D	10,490	.90	E
I-5 south of Crown Valley Parkway	No Project	Northbound	5+1H	11,600	7,150	.62	C	7,580	.65	C
		Southbound	5+1H	11,600	7,170	.62	C	7,920	.68	C
	Project Alternative 1	Northbound	5+1H	11,600	7,160	.62	C	7,580	.65	C
		Southbound	5+1H	11,600	7,170	.62	C	7,930	.68	C
	Project Alternative 2	Northbound	5+1H	11,600	7,160	.62	C	7,580	.65	C
		Southbound	5+1H	11,600	7,170	.62	C	7,930	.68	C
	Project Alternative 3	Northbound	5+1H	11,600	7,160	.62	C	7,580	.65	C
		Southbound	5+1H	11,600	7,170	.62	C	7,930	.68	C
I-5 north of Junipero Serra Road	No Project	Northbound	5+1H	11,600	11,180	.96	E	10,480	.90	E
		Southbound	5+1H	11,600	9,620	.83	D	11,210	.97	E
	Project Alternative 1	Northbound	5+1H	11,600	11,190	.96	E	10,490	.90	E
		Southbound	5+1H	11,600	9,620	.83	D	11,220	.97	E
	Project Alternative 2	Northbound	5+1H	11,600	11,190	.96	E	10,490	.90	E
		Southbound	5+1H	11,600	9,620	.83	D	11,220	.97	E
	Project Alternative 3	Northbound	5+1H	11,600	11,200	.97	E	10,490	.90	E
		Southbound	5+1H	11,600	9,620	.83	D	11,230	.97	E

Table 4-11 2035 Cumulative Without SR-241 Extension Freeway/Tollway Mainline LOS Summary (continued)

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Ortega Highway	No Project	Northbound	5+1H	11,600	10,810	.93	E	9,750	.84	D
		Southbound	5+1H	11,600	8,830	.76	D	10,590	.91	E
	Project Alternative 1	Northbound	5+1H	11,600	10,820	.93	E	9,760	.84	D
		Southbound	5+1H	11,600	8,830	.76	D	10,600	.91	E
	Project Alternative 2	Northbound	5+1H	11,600	10,820	.93	E	9,760	.84	D
		Southbound	5+1H	11,600	8,830	.76	D	10,600	.91	E
	Project Alternative 3	Northbound	5+1H	11,600	10,830	.93	E	9,760	.84	D
		Southbound	5+1H	11,600	8,830	.76	D	10,610	.91	E
I-5 south of Ortega Highway	No Project	Northbound	4+1H	9,600	9,720	1.01	F	8,510	.89	D
		Southbound	4+1H	9,600	7,670	.80	D	9,360	.98	E
	Project Alternative 1	Northbound	4+1H	9,600	9,720	1.01	F	8,510	.89	D
		Southbound	4+1H	9,600	7,670	.80	D	9,360	.98	E
	Project Alternative 2	Northbound	4+1H	9,600	9,720	1.01	F	8,510	.89	D
		Southbound	4+1H	9,600	7,670	.80	D	9,360	.98	E
	Project Alternative 3	Northbound	4+1H	9,600	9,720	1.01	F	8,510	.89	D
		Southbound	4+1H	9,600	7,670	.80	D	9,360	.98	E
I-5 south of Camino Capistrano	No Project	Northbound	4+1H	9,600	9,630	1.00	E	8,750	.91	E
		Southbound	5+1H	11,600	7,280	.63	C	9,120	.79	D
	Project Alternative 1	Northbound	4+1H	9,600	9,630	1.00	E	8,750	.91	E
		Southbound	5+1H	11,600	7,280	.63	C	9,120	.79	D
	Project Alternative 2	Northbound	4+1H	9,600	9,630	1.00	E	8,750	.91	E
		Southbound	5+1H	11,600	7,280	.63	C	9,120	.79	D
	Project Alternative 3	Northbound	4+1H	9,600	9,630	1.00	E	8,750	.91	E
		Southbound	5+1H	11,600	7,280	.63	C	9,120	.79	D
SR-73 north of I-5	No Project	Northbound	3	6,000	3,940	.66	C	3,160	.53	C
		Southbound	3	6,000	2,410	.40	B	3,880	.65	C
	Project Alternative 1	Northbound	3	6,000	3,950	.66	C	3,170	.53	C
		Southbound	3	6,000	2,410	.40	B	3,890	.65	C
	Project Alternative 2	Northbound	3	6,000	3,950	.66	C	3,170	.53	C
		Southbound	3	6,000	2,410	.40	B	3,890	.65	C
	Project Alternative 3	Northbound	3	6,000	3,950	.66	C	3,170	.53	C
		Southbound	3	6,000	2,410	.40	B	3,890	.65	C

Table 4-11 2035 Cumulative Without SR-241 Extension Freeway/Tollway Mainline LOS Summary (continued)

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 north of Oso Parkway	No Project	Northbound	2	4,000	1,780	.45	B	700	.18	A
		Southbound	2	4,000	680	.17	A	1,720	.43	B
	Project Alternative 1	Northbound	2	4,000	1,790	.45	B	710	.18	A
		Southbound	2	4,000	690	.17	A	1,730	.43	B
	Project Alternative 2	Northbound	2	4,000	1,790	.45	B	710	.18	A
		Southbound	2	4,000	690	.17	A	1,730	.43	B
	Project Alternative 3	Northbound	2	4,000	1,800	.45	B	710	.18	A
		Southbound	2	4,000	690	.17	A	1,740	.44	B

Abbreviations: H – high-occupancy vehicle lane
LOS – level of service
V/C – volume/capacity ratio

Denotes a peak hour deficiency.

Table 4-12 2035 Cumulative With SR-241 Extension Freeway/Tollway Mainline LOS Summary

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Oso Parkway	No Project	Northbound	5+1H	11,600	10,180	.88	D	9,780	.84	D
		Southbound	5+1H	11,600	8,600	.74	D	10,610	.91	E
	Project Alternative 1	Northbound	5+1H	11,600	10,200	.88	D	9,780	.84	D
		Southbound	5+1H	11,600	8,600	.74	D	10,630	.92	E
	Project Alternative 2	Northbound	5+1H	11,600	10,200	.88	D	9,780	.84	D
		Southbound	5+1H	11,600	8,600	.74	D	10,630	.92	E
	Project Alternative 3	Northbound	5+1H	11,600	10,210	.88	D	9,780	.84	D
		Southbound	5+1H	11,600	8,600	.74	D	10,640	.92	E
I-5 north of Crown Valley Parkway	No Project	Northbound	5+1H	11,600	8,720	.75	D	9,240	.80	D
		Southbound	5+1H	11,600	9,050	.78	D	9,790	.84	D
	Project Alternative 1	Northbound	5+1H	11,600	8,730	.75	D	9,240	.80	D
		Southbound	5+1H	11,600	9,050	.78	D	9,800	.84	D
	Project Alternative 2	Northbound	5+1H	11,600	8,730	.75	D	9,240	.80	D
		Southbound	5+1H	11,600	9,050	.78	D	9,800	.84	D
	Project Alternative 3	Northbound	5+1H	11,600	8,740	.75	D	9,240	.80	D
		Southbound	5+1H	11,600	9,050	.78	D	9,810	.85	D
I-5 south of Crown Valley Parkway	No Project	Northbound	5+1H	11,600	6,510	.56	C	6,770	.58	C
		Southbound	5+1H	11,600	6,550	.56	C	7,120	.61	C
	Project Alternative 1	Northbound	5+1H	11,600	6,520	.56	C	6,770	.58	C
		Southbound	5+1H	11,600	6,550	.56	C	7,130	.61	C
	Project Alternative 2	Northbound	5+1H	11,600	6,520	.56	C	6,770	.58	C
		Southbound	5+1H	11,600	6,550	.56	C	7,130	.61	C
	Project Alternative 3	Northbound	5+1H	11,600	6,520	.56	C	6,770	.58	C
		Southbound	5+1H	11,600	6,550	.56	C	7,130	.61	C
I-5 north of Junipero Serra Road	No Project	Northbound	5+1H	11,600	10,360	.89	D	9,420	.81	D
		Southbound	5+1H	11,600	8,810	.76	D	10,140	.87	D
	Project Alternative 1	Northbound	5+1H	11,600	10,370	.89	D	9,430	.81	D
		Southbound	5+1H	11,600	8,810	.76	D	10,150	.88	D
	Project Alternative 2	Northbound	5+1H	11,600	10,370	.89	D	9,430	.81	D
		Southbound	5+1H	11,600	8,810	.76	D	10,150	.88	D
	Project Alternative 3	Northbound	5+1H	11,600	10,380	.89	D	9,430	.81	D
		Southbound	5+1H	11,600	8,810	.76	D	10,160	.88	D

Table 4-12 2035 Cumulative With SR-241 Extension Freeway/Tollway Mainline LOS Summary (continued)

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
I-5 north of Ortega Highway	No Project	Northbound	5+1H	11,600	10,030	.86	D	8,740	.75	D
		Southbound	5+1H	11,600	8,050	.69	C	9,550	.82	D
	Project Alternative 1	Northbound	5+1H	11,600	10,040	.87	D	8,750	.75	D
		Southbound	5+1H	11,600	8,050	.69	C	9,560	.82	D
	Project Alternative 2	Northbound	5+1H	11,600	10,040	.87	D	8,750	.75	D
		Southbound	5+1H	11,600	8,050	.69	C	9,560	.82	D
	Project Alternative 3	Northbound	5+1H	11,600	10,050	.87	D	8,750	.75	D
		Southbound	5+1H	11,600	8,050	.69	C	9,570	.83	D
I-5 south of Ortega Highway	No Project	Northbound	4+1H	9,600	8,640	.90	E	7,270	.76	D
		Southbound	4+1H	9,600	6,690	.70	C	8,060	.84	D
	Project Alternative 1	Northbound	4+1H	9,600	8,640	.90	E	7,270	.76	D
		Southbound	4+1H	9,600	6,690	.70	C	8,060	.84	D
	Project Alternative 2	Northbound	4+1H	9,600	8,640	.90	E	7,270	.76	D
		Southbound	4+1H	9,600	6,690	.70	C	8,060	.84	D
	Project Alternative 3	Northbound	4+1H	9,600	8,640	.90	E	7,270	.76	D
		Southbound	4+1H	9,600	6,690	.70	C	8,060	.84	D
I-5 south of Camino Capistrano	No Project	Northbound	4+1H	9,600	8,530	.89	D	7,460	.78	D
		Southbound	5+1H	11,600	6,230	.54	C	7,610	.66	C
	Project Alternative 1	Northbound	4+1H	9,600	8,530	.89	D	7,460	.78	D
		Southbound	5+1H	11,600	6,230	.54	C	7,610	.66	C
	Project Alternative 2	Northbound	4+1H	9,600	8,530	.89	D	7,460	.78	D
		Southbound	5+1H	11,600	6,230	.54	C	7,610	.66	C
	Project Alternative 3	Northbound	4+1H	9,600	8,530	.89	D	7,460	.78	D
		Southbound	5+1H	11,600	6,230	.54	C	7,610	.66	C
SR-73 north of I-5	No Project	Northbound	3	6,000	3,730	.62	C	2,840	.47	B
		Southbound	3	6,000	2,240	.37	B	3,540	.59	C
	Project Alternative 1	Northbound	3	6,000	3,740	.62	C	2,850	.48	B
		Southbound	3	6,000	2,240	.37	B	3,550	.59	C
	Project Alternative 2	Northbound	3	6,000	3,740	.62	C	2,850	.48	B
		Southbound	3	6,000	2,240	.37	B	3,550	.59	C
	Project Alternative 3	Northbound	3	6,000	3,740	.62	C	2,850	.48	B
		Southbound	3	6,000	2,240	.37	B	3,550	.59	C

Table 4-12 2035 Cumulative With SR-241 Extension Freeway/Tollway Mainline LOS Summary (continued)

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 north of Oso Parkway	No Project	Northbound	3	6,000	2,990	.50	B	2,650	.44	B
		Southbound	3	6,000	2,020	.34	B	3,320	.55	C
	Project Alternative 1	Northbound	3	6,000	3,020	.50	B	2,660	.44	B
		Southbound	3	6,000	2,030	.34	B	3,340	.56	C
	Project Alternative 2	Northbound	3	6,000	3,030	.51	C	2,660	.44	B
		Southbound	3	6,000	2,030	.34	B	3,340	.56	C
	Project Alternative 3	Northbound	3	6,000	3,050	.51	C	2,670	.45	B
		Southbound	3	6,000	2,030	.34	B	3,350	.56	C
SR-241 south of Oso Parkway	No Project	Northbound	3	6,000	3,060	.51	C	3,150	.53	C
		Southbound	3	6,000	2,340	.39	B	3,800	.63	C
	Project Alternative 1	Northbound	3	6,000	3,120	.52	C	3,180	.53	C
		Southbound	3	6,000	2,350	.39	B	3,850	.64	C
	Project Alternative 2	Northbound	3	6,000	3,140	.52	C	3,190	.53	C
		Southbound	3	6,000	2,350	.39	B	3,860	.64	C
	Project Alternative 3	Northbound	3	6,000	3,170	.53	C	3,200	.53	C
		Southbound	3	6,000	2,360	.39	B	3,880	.65	C
SR-241 south of Chiquita Canyon Road/Grandeza Drive	No Project	Northbound	3	6,000	2,130	.36	B	2,410	.40	B
		Southbound	3	6,000	1,880	.31	B	2,650	.44	B
	Project Alternative 1	Northbound	3	6,000	2,150	.36	B	2,420	.40	B
		Southbound	3	6,000	1,890	.32	B	2,670	.45	B
	Project Alternative 2	Northbound	3	6,000	2,160	.36	B	2,420	.40	B
		Southbound	3	6,000	1,890	.32	B	2,680	.45	B
	Project Alternative 3	Northbound	3	6,000	2,170	.36	B	2,420	.40	B
		Southbound	3	6,000	1,890	.32	B	2,690	.45	B
SR-241 north of Avenida Pico	No Project	Northbound	3	6,000	2,030	.34	B	2,340	.39	B
		Southbound	3	6,000	1,760	.29	A	2,580	.43	B
	Project Alternative 1	Northbound	3	6,000	2,040	.34	B	2,340	.39	B
		Southbound	3	6,000	1,760	.29	A	2,590	.43	B
	Project Alternative 2	Northbound	3	6,000	2,040	.34	B	2,340	.39	B
		Southbound	3	6,000	1,760	.29	A	2,590	.43	B
	Project Alternative 3	Northbound	3	6,000	2,040	.34	B	2,340	.39	B
		Southbound	3	6,000	1,760	.29	A	2,590	.43	B

Table 4-12 2035 Cumulative With SR-241 Extension Freeway/Tollway Mainline LOS Summary (continued)

Location	Scenario	Direction	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
SR-241 south of Avenida Pico	No Project	Northbound	3	6,000	1,700	.28	A	1,900	.32	B
		Southbound	3	6,000	1,260	.21	A	2,260	.38	B
	Project Alternative 1	Northbound	3	6,000	1,700	.28	A	1,900	.32	B
		Southbound	3	6,000	1,260	.21	A	2,260	.38	B
	Project Alternative 2	Northbound	3	6,000	1,700	.28	A	1,900	.32	B
		Southbound	3	6,000	1,260	.21	A	2,260	.38	B
	Project Alternative 3	Northbound	3	6,000	1,700	.28	A	1,900	.32	B
		Southbound	3	6,000	1,260	.21	A	2,260	.38	B

Abbreviations: H – high-occupancy vehicle lane
LOS – level of service
V/C – volume/capacity ratio

Appendix A Intersection Capacity Utilization (ICU) Worksheets

This appendix summarizes the intersection capacity utilization (ICU) worksheets applied in the traffic study for the Orange County Affordable Housing Implementation Program. An intersection location reference map is provided in Figure A-1 for the intersections analyzed based on the alternative existing baseline setting and the 2035 cumulative setting without the SR-241 extension and in Figure A-2 for the intersections analyzed based on the 2035 cumulative setting with the SR-241 extension. AM and PM peak hour ICU worksheets are provided in this appendix for the following scenarios that were analyzed in the traffic study:

Existing

Alternative Existing Baseline – No Project
Alternative Existing Baseline – Project Alternative 1
Alternative Existing Baseline – Project Alternative 2
Alternative Existing Baseline – Project Alternative 3

2035 Cumulative Without SR-241 Extension – No Project
2035 Cumulative Without SR-241 Extension – Project Alternative 1
2035 Cumulative Without SR-241 Extension – Project Alternative 2
2035 Cumulative Without SR-241 Extension – Project Alternative 3

2035 Cumulative With SR-241 Extension – No Project
2035 Cumulative With SR-241 Extension – Project Alternative 1
2035 Cumulative With SR-241 Extension – Project Alternative 2
2035 Cumulative With SR-241 Extension – Project Alternative 3

ICU Calculation Methodology

The ICU calculation procedure is based on a critical movement methodology that shows the amount of capacity utilized by each critical movement at an intersection. For City of San Clemente intersections, a capacity of 1,600 vehicles per hour per lane is assumed with no clearance interval. For intersections in all other jurisdictions in the study area, a capacity of 1700 vehicles per hour per lane is assumed together with a .05 clearance interval. A "de-facto" right-turn lane is used in the ICU calculation for cases where a curb lane is wide enough to separately serve both through and right-turn traffic (typically with a width of 19 feet or more from curb to outside of through-lane with parking prohibited during peak periods). Such lanes are treated the same as striped right-turn lanes during the ICU calculations, but they are denoted on the ICU calculation worksheets using the letter "d" in place of a numerical entry for right-turn lanes.

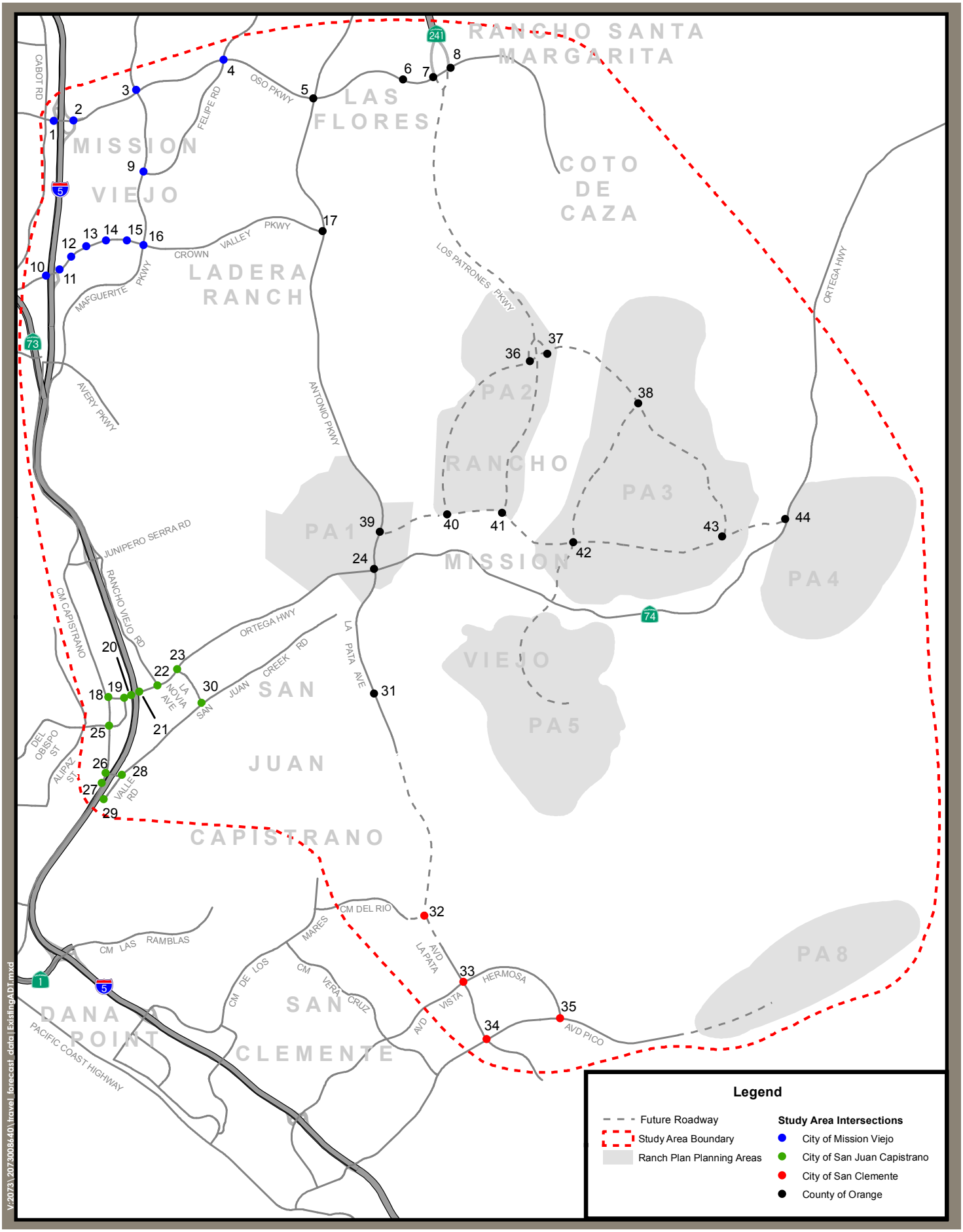

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Figure A-1

Intersection Location Map - Alternative Existing Baseline and 2035 Cumulative Without SR-241 Extension

A.2

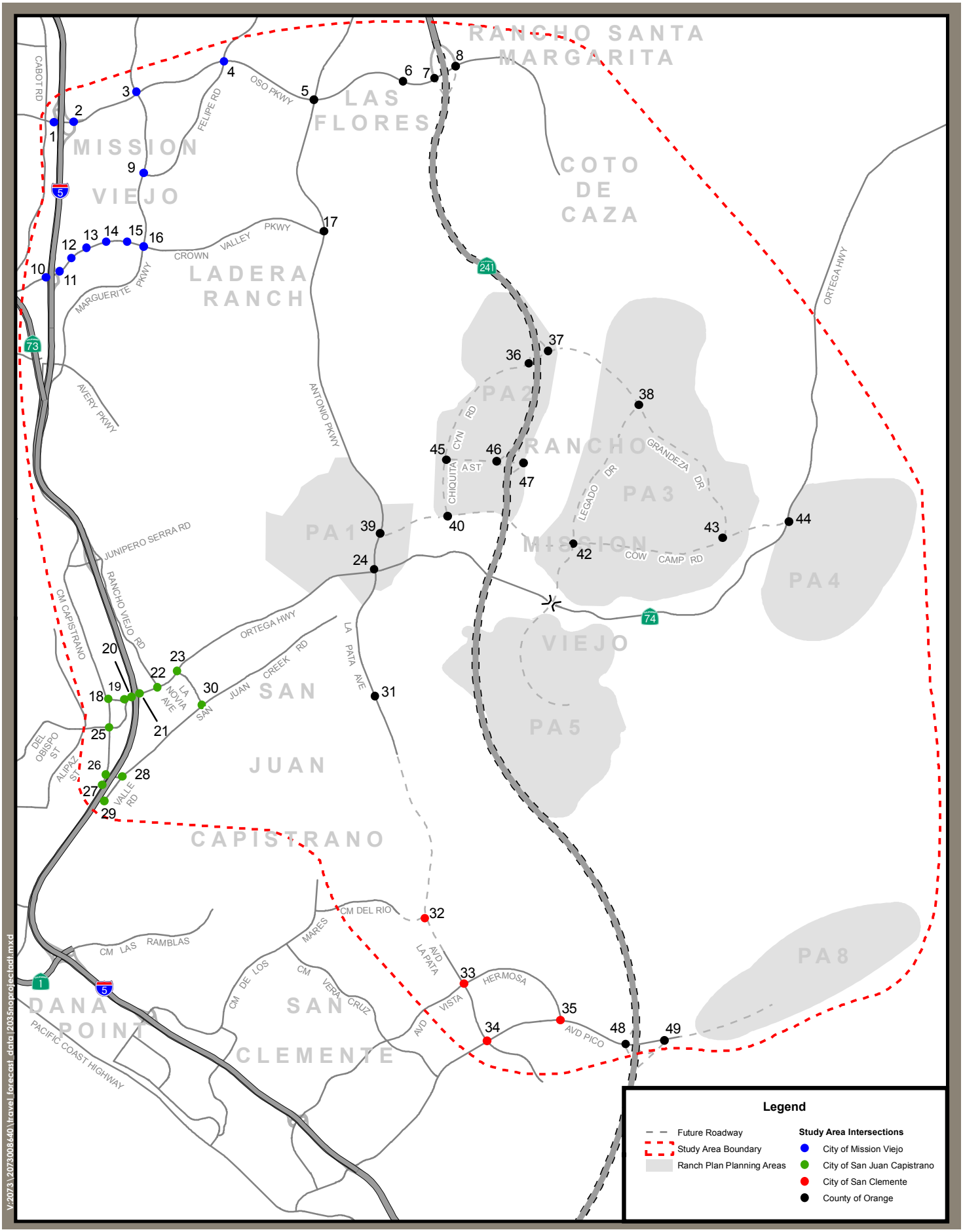

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Figure A-2

Intersection Location Map - 2035 Cumulative With SR-241 Extension

A.3

1. I-5 SB Ramps & Oso

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	580	.17*	1180	.35*
SBT	0	0	0		0	
SBR	2	3400	290	.09	380	.11
EBL	0	0	0		0	
EBT	3	5100	1020	.20	1480	.29*
EBR	f		420		450	
WBL	0	0	0		0	
WBT	3	5100	1510	.30*	1220	.24
WBR	f		700		510	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.69**

1. I-5 SB Ramps & Oso

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	570	.17*	1290	.38*
SBT	0	0	0		0	
SBR	2	3400	280	.08	270	.08
EBL	0	0	0		0	
EBT	3	5100	960	.19	1530	.30*
EBR	f		510		520	
WBL	0	0	0		0	
WBT	3	5100	1510	.30*	1410	.28
WBR	f		650		470	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	570	.17*	1300	.38*
SBT	0	0	0		0	
SBR	2	3400	280	.08	270	.08
EBL	0	0	0		0	
EBT	3	5100	960	.19	1530	.30*
EBR	f		510		520	
WBL	0	0	0		0	
WBT	3	5100	1510	.30*	1410	.28
WBR	f		650		470	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	570	.17*	1300	.38*
SBT	0	0	0		0	
SBR	2	3400	280	.08	270	.08
EBL	0	0	0		0	
EBT	3	5100	960	.19	1530	.30*
EBR	f		510		520	
WBL	0	0	0		0	
WBT	3	5100	1510	.30*	1410	.28
WBR	f		650		470	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	570	.17*	1300	.38*
SBT	0	0	0		0	
SBR	2	3400	280	.08	270	.08
EBL	0	0	0		0	
EBT	3	5100	960	.19	1530	.30*
EBR	f		510		520	
WBL	0	0	0		0	
WBT	3	5100	1510	.30*	1410	.28
WBR	f		650		470	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

1. I-5 SB Ramps & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	670	.20*	1310	.39*
SBT	0	0	0		0	
SBR	2	3400	670	.20	400	.12
EBL	0	0	0		0	
EBT	3	5100	1090	.21	1710	.34*
EBR	f		400		520	
WBL	0	0	0		0	
WBT	3	5100	1410	.28*	1460	.29
WBR	f		720		660	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.78**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	670	.20*	1320	.39*
SBT	0	0	0		0	
SBR	2	3400	670	.20	400	.12
EBL	0	0	0		0	
EBT	3	5100	1090	.21	1710	.34*
EBR	f		400		520	
WBL	0	0	0		0	
WBT	3	5100	1410	.28*	1460	.29
WBR	f		720		660	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.78**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	670	.20*	1320	.39*
SBT	0	0	0		0	
SBR	2	3400	670	.20	400	.12
EBL	0	0	0		0	
EBT	3	5100	1090	.21	1710	.34*
EBR	f		400		520	
WBL	0	0	0		0	
WBT	3	5100	1410	.28*	1460	.29
WBR	f		720		660	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.78**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	670	.20*	1320	.39*
SBT	0	0	0		0	
SBR	2	3400	670	.20	400	.12
EBL	0	0	0		0	
EBT	3	5100	1090	.21	1710	.34*
EBR	f		400		520	
WBL	0	0	0		0	
WBT	3	5100	1410	.28*	1460	.29
WBR	f		720		660	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.78**

1. I-5 SB Ramps & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	550	.16*	1220	.36*
SBT	0	0	0		0	
SBR	2	3400	680	.20	420	.12
EBL	0	0	0		0	
EBT	3	5100	1080	.21	1730	.34*
EBR	f		400		600	
WBL	0	0	0		0	
WBT	3	5100	1480	.29*	1420	.28
WBR	f		740		610	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.75**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	550	.16*	1230	.36*
SBT	0	0	0		0	
SBR	2	3400	680	.20	420	.12
EBL	0	0	0		0	
EBT	3	5100	1080	.21	1730	.34*
EBR	f		400		600	
WBL	0	0	0		0	
WBT	3	5100	1480	.29*	1420	.28
WBR	f		740		610	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.75**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	550	.16*	1230	.36*
SBT	0	0	0		0	
SBR	2	3400	680	.20	420	.12
EBL	0	0	0		0	
EBT	3	5100	1080	.21	1730	.34*
EBR	f		400		600	
WBL	0	0	0		0	
WBT	3	5100	1480	.29*	1420	.28
WBR	f		740		610	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.75**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	550	.16*	1230	.36*
SBT	0	0	0		0	
SBR	2	3400	680	.20	420	.12
EBL	0	0	0		0	
EBT	3	5100	1080	.21	1730	.34*
EBR	f		400		600	
WBL	0	0	0		0	
WBT	3	5100	1480	.29*	1420	.28
WBR	f		740		610	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.75**

2. I-5 NB Ramps & Oso

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		360	{.12}*	460	{.19}*
NBT	0	5100	0	{.12}	0	.19
NBR	1.5		420		500	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1080	.21	2310	.45*
EBR	f		520		350	
WBL	0	0	0		0	
WBT	3	5100	1850	.36*	1270	.25
WBR	f		1230		680	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.69**

2. I-5 NB Ramps & Oso

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		370	{.12}*	590	{.20}*
NBT	0	5100	0	{.12}	0	.20
NBR	1.5		430		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1120	.22	2470	.48*
EBR	f		410		340	
WBL	0	0	0		0	
WBT	3	5100	1790	.35*	1290	.25
WBR	f		1370		910	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		370	{.12}*	590	{.20}*
NBT	0	5100	0	{.12}	0	.20
NBR	1.5		430		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1120	.22	2470	.48*
EBR	f		410		340	
WBL	0	0	0		0	
WBT	3	5100	1790	.35*	1290	.25
WBR	f		1380		920	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		370	{.12}*	590	{.20}*
NBT	0	5100	0	{.12}	0	.20
NBR	1.5		430		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1120	.22	2470	.48*
EBR	f		410		340	
WBL	0	0	0		0	
WBT	3	5100	1790	.35*	1290	.25
WBR	f		1380		920	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		370	{.12}*	590	{.20}*
NBT	0	5100	0	{.12}	0	.20
NBR	1.5		430		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1120	.22	2470	.48*
EBR	f		410		340	
WBL	0	0	0		0	
WBT	3	5100	1790	.35*	1290	.25
WBR	f		1380		920	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.73**

2. I-5 NB Ramps & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	{.12}*	590	{.24}*
NBT	0	5100	0	{.12}	0	.24
NBR	1.5		470		610	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1270	.25	2600	.51*
EBR	f		500		390	
WBL	0	0	0		0	
WBT	3	5100	1960	.38*	1510	.30
WBR	f		1380		710	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.80**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	{.12}*	590	{.24}*
NBT	0	5100	0	{.12}	0	.24
NBR	1.5		470		610	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1270	.25	2600	.51*
EBR	f		500		390	
WBL	0	0	0		0	
WBT	3	5100	1960	.38*	1510	.30
WBR	f		1390		720	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.80**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	{.12}*	590	{.24}*
NBT	0	5100	0	{.12}	0	.24
NBR	1.5		470		610	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1270	.25	2600	.51*
EBR	f		500		390	
WBL	0	0	0		0	
WBT	3	5100	1960	.38*	1510	.30
WBR	f		1390		720	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.80**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	{.12}*	590	{.24}*
NBT	0	5100	0	{.12}	0	.24
NBR	1.5		470		610	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1270	.25	2600	.51*
EBR	f		500		390	
WBL	0	0	0		0	
WBT	3	5100	1960	.38*	1510	.30
WBR	f		1390		720	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.80**

2. I-5 NB Ramps & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		340	{.12}*	540	{.23}*
NBT	0	5100	0	{.12}	0	.23
NBR	1.5		480		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1160	.23	2530	.50*
EBR	f		480		400	
WBL	0	0	0		0	
WBT	3	5100	2020	.40*	1480	.29
WBR	f		1320		650	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.78**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		340	{.12}*	540	{.23}*
NBT	0	5100	0	{.12}	0	.23
NBR	1.5		480		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1160	.23	2530	.50*
EBR	f		480		400	
WBL	0	0	0		0	
WBT	3	5100	2020	.40*	1480	.29
WBR	f		1330		650	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.78**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		340	{.12}*	540	{.23}*
NBT	0	5100	0	{.12}	0	.23
NBR	1.5		480		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1160	.23	2530	.50*
EBR	f		480		400	
WBL	0	0	0		0	
WBT	3	5100	2020	.40*	1480	.29
WBR	f		1330		650	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.78**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		340	{.12}*	540	{.23}*
NBT	0	5100	0	{.12}	0	.23
NBR	1.5		480		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1160	.23	2530	.50*
EBR	f		480		400	
WBL	0	0	0		0	
WBT	3	5100	2020	.40*	1480	.29
WBR	f		1330		650	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.78**

3. Marguerite & Oso

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	520	.15*	270	.08
NBT	2	3400	590	.17	820	.24*
NBR	1	1700	110	.06	50	.03
SBL	2	3400	80	.02	320	.09*
SBT	2	3400	610	.18*	780	.23
SBR	1	1700	220	.13	240	.14
EBL	2	3400	280	.08*	460	.14*
EBT	4	6800	860	.13	1740	.26
EBR	d	1700	190	.11	520	.31
WBL	2	3400	70	.02	120	.04
WBT	4	6800	2080	.31*	1230	.18*
WBR	d	1700	110	.06	80	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.70**

3. Marguerite & Oso

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	520	.15*	240	.07
NBT	2	3400	570	.17	770	.23*
NBR	1	1700	110	.06	50	.03
SBL	2	3400	120	.04	370	.11*
SBT	2	3400	640	.19*	820	.24
SBR	1	1700	210	.12	220	.13
EBL	2	3400	260	.08*	450	.13*
EBT	4	6800	950	.14	1900	.28
EBR	d	1700	160	.09	490	.29
WBL	2	3400	70	.02	110	.03
WBT	4	6800	2190	.32*	1520	.22*
WBR	d	1700	110	.06	140	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.74**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	520	.15*	240	.07
NBT	2	3400	570	.17	770	.23*
NBR	1	1700	110	.06	50	.03
SBL	2	3400	120	.04	370	.11*
SBT	2	3400	640	.19*	820	.24
SBR	1	1700	210	.12	220	.13
EBL	2	3400	260	.08*	450	.13*
EBT	4	6800	960	.14	1910	.28
EBR	d	1700	160	.09	490	.29
WBL	2	3400	70	.02	110	.03
WBT	4	6800	2200	.32*	1530	.23*
WBR	d	1700	110	.06	140	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.75**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	520	.15*	240	.07
NBT	2	3400	570	.17	770	.23*
NBR	1	1700	110	.06	50	.03
SBL	2	3400	120	.04	370	.11*
SBT	2	3400	640	.19*	820	.24
SBR	1	1700	210	.12	220	.13
EBL	2	3400	260	.08*	450	.13*
EBT	4	6800	960	.14	1910	.28
EBR	d	1700	160	.09	490	.29
WBL	2	3400	70	.02	110	.03
WBT	4	6800	2200	.32*	1530	.23*
WBR	d	1700	110	.06	140	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.75**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	520	.15*	240	.07
NBT	2	3400	570	.17	770	.23*
NBR	1	1700	110	.06	50	.03
SBL	2	3400	120	.04	370	.11*
SBT	2	3400	640	.19*	820	.24
SBR	1	1700	210	.12	220	.13
EBL	2	3400	260	.08*	450	.13*
EBT	4	6800	960	.14	1920	.28
EBR	d	1700	160	.09	490	.29
WBL	2	3400	70	.02	110	.03
WBT	4	6800	2210	.33*	1530	.23*
WBR	d	1700	110	.06	140	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.75**

3. Marguerite & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	400	.12	220	.06
NBT	2	3400	900	.26*	830	.24*
NBR	1	1700	60	.04	80	.05
SBL	2	3400	130	.04*	260	.08*
SBT	2	3400	590	.17	800	.24
SBR	1	1700	300	.18	290	.17
EBL	2	3400	300	.09*	340	.10
EBT	4	6800	1300	.19	1880	.28*
EBR	d	1700	190	.11	570	.34
WBL	2	3400	90	.03	140	.04*
WBT	4	6800	2030	.30*	1380	.20
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.69**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	400	.12	220	.06
NBT	2	3400	900	.26*	830	.24*
NBR	1	1700	60	.04	80	.05
SBL	2	3400	130	.04*	260	.08*
SBT	2	3400	590	.17	800	.24
SBR	1	1700	300	.18	290	.17
EBL	2	3400	300	.09*	340	.10
EBT	4	6800	1310	.19	1890	.28*
EBR	d	1700	190	.11	570	.34
WBL	2	3400	90	.03	140	.04*
WBT	4	6800	2040	.30*	1390	.20
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.69**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	400	.12	220	.06
NBT	2	3400	900	.26*	830	.24*
NBR	1	1700	60	.04	80	.05
SBL	2	3400	130	.04*	260	.08*
SBT	2	3400	590	.17	800	.24
SBR	1	1700	300	.18	290	.17
EBL	2	3400	300	.09*	340	.10
EBT	4	6800	1310	.19	1890	.28*
EBR	d	1700	190	.11	570	.34
WBL	2	3400	90	.03	140	.04*
WBT	4	6800	2040	.30*	1390	.20
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.69**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	400	.12	220	.06
NBT	2	3400	900	.26*	830	.24*
NBR	1	1700	60	.04	80	.05
SBL	2	3400	130	.04*	260	.08*
SBT	2	3400	590	.17	800	.24
SBR	1	1700	300	.18	290	.17
EBL	2	3400	300	.09*	340	.10
EBT	4	6800	1310	.19	1900	.28*
EBR	d	1700	190	.11	570	.34
WBL	2	3400	90	.03	140	.04*
WBT	4	6800	2050	.30*	1390	.20
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.69**

3. Marguerite & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	410	.12	230	.07
NBT	2	3400	890	.26*	790	.23*
NBR	1	1700	70	.04	80	.05
SBL	2	3400	140	.04*	280	.08*
SBT	2	3400	570	.17	780	.23
SBR	1	1700	280	.16	250	.15
EBL	2	3400	260	.08*	300	.09
EBT	4	6800	1230	.18	1900	.28*
EBR	d	1700	190	.11	560	.33
WBL	2	3400	100	.03	140	.04*
WBT	4	6800	2030	.30*	1320	.19
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	410	.12	230	.07
NBT	2	3400	890	.26*	790	.23*
NBR	1	1700	70	.04	80	.05
SBL	2	3400	140	.04*	280	.08*
SBT	2	3400	570	.17	780	.23
SBR	1	1700	280	.16	250	.15
EBL	2	3400	260	.08*	300	.09
EBT	4	6800	1230	.18	1910	.28*
EBR	d	1700	190	.11	560	.33
WBL	2	3400	100	.03	140	.04*
WBT	4	6800	2040	.30*	1330	.20
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	410	.12	230	.07
NBT	2	3400	890	.26*	790	.23*
NBR	1	1700	70	.04	80	.05
SBL	2	3400	140	.04*	280	.08*
SBT	2	3400	570	.17	780	.23
SBR	1	1700	280	.16	250	.15
EBL	2	3400	260	.08*	300	.09
EBT	4	6800	1230	.18	1910	.28*
EBR	d	1700	190	.11	560	.33
WBL	2	3400	100	.03	140	.04*
WBT	4	6800	2040	.30*	1330	.20
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	410	.12	230	.07
NBT	2	3400	890	.26*	790	.23*
NBR	1	1700	70	.04	80	.05
SBL	2	3400	140	.04*	280	.08*
SBT	2	3400	570	.17	780	.23
SBR	1	1700	280	.16	250	.15
EBL	2	3400	260	.08*	300	.09
EBT	4	6800	1230	.18	1920	.28*
EBR	d	1700	190	.11	560	.33
WBL	2	3400	100	.03	140	.04*
WBT	4	6800	2050	.30*	1330	.20
WBR	d	1700	70	.04	180	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.68**

4. Felipe & Oso

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	120	.07	60	.04
NBT	2	3400	230	.07*	350	.10*
NBR	1	1700	130	.08	90	.05
SBL	1	1700	360	.21*	360	.21*
SBT	2	3400	530	.16	240	.07
SBR	d	1700	240	.14	140	.08
EBL	1	1700	150	.09*	240	.14*
EBT	3	5100	990	.19	1580	.31
EBR	d	1700	70	.04	80	.05
WBL	1	1700	120	.07	70	.04
WBT	3	5100	1730	.34*	1160	.23*
WBR	d	1700	410	.24	270	.16
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.76**		**.73**

4. Felipe & Oso

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	110	.06	60	.04
NBT	2	3400	220	.06*	310	.09*
NBR	1	1700	160	.09	200	.12
SBL	1	1700	430	.25*	410	.24*
SBT	2	3400	440	.13	220	.06
SBR	d	1700	190	.11	110	.06
EBL	1	1700	120	.07*	200	.12
EBT	3	5100	1170	.23	1820	.36*
EBR	d	1700	70	.04	80	.05
WBL	1	1700	160	.09	140	.08*
WBT	3	5100	1890	.37*	1540	.30
WBR	d	1700	430	.25	290	.17
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.82**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	110	.06	60	.04
NBT	2	3400	220	.06*	310	.09*
NBR	1	1700	160	.09	200	.12
SBL	1	1700	430	.25*	410	.24*
SBT	2	3400	440	.13	220	.06
SBR	d	1700	190	.11	110	.06
EBL	1	1700	120	.07*	200	.12
EBT	3	5100	1180	.23	1840	.36*
EBR	d	1700	70	.04	80	.05
WBL	1	1700	160	.09	140	.08*
WBT	3	5100	1910	.37*	1550	.30
WBR	d	1700	430	.25	290	.17
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.82**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	110	.06	60	.04
NBT	2	3400	220	.06*	310	.09*
NBR	1	1700	160	.09	200	.12
SBL	1	1700	430	.25*	410	.24*
SBT	2	3400	440	.13	220	.06
SBR	d	1700	190	.11	110	.06
EBL	1	1700	120	.07*	200	.12
EBT	3	5100	1180	.23	1850	.36*
EBR	d	1700	70	.04	80	.05
WBL	1	1700	160	.09	140	.08*
WBT	3	5100	1920	.38*	1550	.30
WBR	d	1700	430	.25	290	.17
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.81**		**.82**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	110	.06	60	.04
NBT	2	3400	220	.06*	310	.09*
NBR	1	1700	160	.09	200	.12
SBL	1	1700	430	.25*	410	.24*
SBT	2	3400	440	.13	220	.06
SBR	d	1700	190	.11	110	.06
EBL	1	1700	120	.07*	200	.12
EBT	3	5100	1180	.23	1860	.36*
EBR	d	1700	70	.04	80	.05
WBL	1	1700	160	.09	140	.08*
WBT	3	5100	1930	.38*	1560	.31
WBR	d	1700	430	.25	290	.17
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.81**		**.82**

4. Felipe & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	150	.09	70	.04
NBT	2	3400	220	.06*	360	.11*
NBR	1	1700	100	.06	150	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	610	.18	280	.08
SBR	d	1700	250	.15	90	.05
EBL	1	1700	180	.11*	220	.13
EBT	3	5100	1470	.29	1770	.35*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	130	.08	140	.08*
WBT	3	5100	1760	.35*	1400	.27
WBR	d	1700	450	.26	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.85**		**.90**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	150	.09	70	.04
NBT	2	3400	220	.06*	360	.11*
NBR	1	1700	100	.06	150	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	610	.18	280	.08
SBR	d	1700	250	.15	90	.05
EBL	1	1700	180	.11*	220	.13
EBT	3	5100	1480	.29	1790	.35*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	130	.08	140	.08*
WBT	3	5100	1780	.35*	1410	.28
WBR	d	1700	450	.26	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.85**		**.90**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	150	.09	70	.04
NBT	2	3400	220	.06*	360	.11*
NBR	1	1700	100	.06	150	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	610	.18	280	.08
SBR	d	1700	250	.15	90	.05
EBL	1	1700	180	.11*	220	.13
EBT	3	5100	1480	.29	1800	.35*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	130	.08	140	.08*
WBT	3	5100	1790	.35*	1410	.28
WBR	d	1700	450	.26	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.85**		**.90**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	150	.09	70	.04
NBT	2	3400	220	.06*	360	.11*
NBR	1	1700	100	.06	150	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	610	.18	280	.08
SBR	d	1700	250	.15	90	.05
EBL	1	1700	180	.11*	220	.13
EBT	3	5100	1480	.29	1810	.35*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	130	.08	140	.08*
WBT	3	5100	1800	.35*	1420	.28
WBR	d	1700	450	.26	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.85**		**.90**

4. Felipe & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	160	.09	70	.04
NBT	2	3400	200	.06*	350	.10*
NBR	1	1700	140	.08	160	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	590	.17	250	.07
SBR	d	1700	250	.15	110	.06
EBL	1	1700	180	.11*	240	.14
EBT	3	5100	1390	.27	1790	.35*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	180	.11	120	.07*
WBT	3	5100	1770	.35*	1300	.25
WBR	d	1700	460	.27	340	.20
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.85** **.88**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	160	.09	70	.04
NBT	2	3400	200	.06*	350	.10*
NBR	1	1700	140	.08	160	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	590	.17	250	.07
SBR	d	1700	250	.15	110	.06
EBL	1	1700	180	.11*	240	.14
EBT	3	5100	1400	.27	1810	.35*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	180	.11	120	.07*
WBT	3	5100	1790	.35*	1310	.26
WBR	d	1700	460	.27	340	.20
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.85** **.88**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	160	.09	70	.04
NBT	2	3400	200	.06*	350	.10*
NBR	1	1700	140	.08	160	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	590	.17	250	.07
SBR	d	1700	250	.15	110	.06
EBL	1	1700	180	.11*	240	.14
EBT	3	5100	1400	.27	1810	.35*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	180	.11	120	.07*
WBT	3	5100	1790	.35*	1310	.26
WBR	d	1700	460	.27	340	.20
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.85** **.88**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	160	.09	70	.04
NBT	2	3400	200	.06*	350	.10*
NBR	1	1700	140	.08	160	.09
SBL	1	1700	470	.28*	520	.31*
SBT	2	3400	590	.17	250	.07
SBR	d	1700	250	.15	110	.06
EBL	1	1700	180	.11*	240	.14
EBT	3	5100	1400	.27	1820	.36*
EBR	d	1700	90	.05	70	.04
WBL	1	1700	180	.11	120	.07*
WBT	3	5100	1800	.35*	1320	.26
WBR	d	1700	460	.27	340	.20
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.85** **.89**

5. Antonio & Oso

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	370	.11*	370	.11*
NBT	3	5100	650	.13	700	.14
NBR	1	1700	560	.33	420	.25
SBL	2	3400	160	.05	60	.02
SBT	3	5100	790	.15*	720	.14*
SBR	f		830		640	
EBL	2	3400	540	.16*	750	.22*
EBT	3	5100	470	.09	700	.14
EBR	1	1700	230	.14	330	.19
WBL	2	3400	610	.18	540	.16
WBT	3	5100	800	.16*	440	.09*
WBR	1	1700	170	.10	60	.04
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.63** **.61**

5. Antonio & Oso

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	270	.08*	340	.10*
NBT	3	5100	650	.13	650	.13
NBR	1	1700	430	.25	390	.23
SBL	2	3400	340	.10	150	.04
SBT	3	5100	830	.16*	760	.15*
SBR	f		760		660	
EBL	2	3400	540	.16*	750	.22*
EBT	3	5100	870	.17	1070	.21
EBR	1	1700	80	.05	300	.18
WBL	2	3400	540	.16	460	.14
WBT	3	5100	1170	.23*	920	.18*
WBR	1	1700	310	.18	190	.11
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.68** **.70**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	270	.08*	340	.10*
NBT	3	5100	650	.13	650	.13
NBR	1	1700	430	.25	390	.23
SBL	2	3400	340	.10	160	.05
SBT	3	5100	830	.16*	760	.15*
SBR	f		760		660	
EBL	2	3400	540	.16*	750	.22*
EBT	3	5100	880	.17	1090	.21
EBR	1	1700	80	.05	300	.18
WBL	2	3400	540	.16	460	.14
WBT	3	5100	1190	.23*	930	.18*
WBR	1	1700	320	.19	190	.11
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.68** **.70**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	270	.08*	340	.10*
NBT	3	5100	650	.13	650	.13
NBR	1	1700	430	.25	390	.23
SBL	2	3400	340	.10	160	.05
SBT	3	5100	830	.16*	760	.15*
SBR	f		760		660	
EBL	2	3400	540	.16*	750	.22*
EBT	3	5100	880	.17	1100	.22
EBR	1	1700	80	.05	300	.18
WBL	2	3400	540	.16	460	.14
WBT	3	5100	1200	.24*	930	.18*
WBR	1	1700	320	.19	190	.11
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.69** **.70**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	270	.08*	340	.10*
NBT	3	5100	650	.13	650	.13
NBR	1	1700	430	.25	390	.23
SBL	2	3400	340	.10	160	.05
SBT	3	5100	830	.16*	760	.15*
SBR	f		760		660	
EBL	2	3400	540	.16*	750	.22*
EBT	3	5100	880	.17	1110	.22
EBR	1	1700	80	.05	300	.18
WBL	2	3400	540	.16	460	.14
WBT	3	5100	1210	.24*	940	.18*
WBR	1	1700	320	.19	190	.11
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.69** **.70**

5. Antonio & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	310	.06	470	.09*
NBT	3	5100	720	.14*	690	.14
NBR	1	1700	490	.29	420	.25
SBL	2	3400	370	.11*	160	.05
SBT	4	6800	880	.13	820	.12*
SBR	f		820		690	
EBL	2	3400	560	.16	790	.23
EBT	3	5100	920	.18*	1150	.23*
EBR	1	1700	100	.06	360	.21
WBL	2	3400	580	.17*	540	.16*
WBT	4	6800	1200	.18	980	.14
WBR	1	1700	320	.19	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.65** **.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	310	.06	470	.09*
NBT	3	5100	720	.14*	690	.14
NBR	1	1700	490	.29	420	.25
SBL	2	3400	370	.11*	170	.05
SBT	4	6800	880	.13	820	.12*
SBR	f		820		690	
EBL	2	3400	560	.16	790	.23
EBT	3	5100	930	.18*	1170	.23*
EBR	1	1700	100	.06	360	.21
WBL	2	3400	580	.17*	540	.16*
WBT	4	6800	1220	.18	990	.15
WBR	1	1700	330	.19	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.65** **.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	310	.06	470	.09*
NBT	3	5100	720	.14*	690	.14
NBR	1	1700	490	.29	420	.25
SBL	2	3400	370	.11*	170	.05
SBT	4	6800	880	.13	820	.12*
SBR	f		820		690	
EBL	2	3400	560	.16	790	.23
EBT	3	5100	930	.18*	1180	.23*
EBR	1	1700	100	.06	360	.21
WBL	2	3400	580	.17*	540	.16*
WBT	4	6800	1230	.18	990	.15
WBR	1	1700	330	.19	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.65** **.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	310	.06	470	.09*
NBT	3	5100	720	.14*	690	.14
NBR	1	1700	490	.29	420	.25
SBL	2	3400	370	.11*	170	.05
SBT	4	6800	880	.13	820	.12*
SBR	f		820		690	
EBL	2	3400	560	.16	790	.23
EBT	3	5100	930	.18*	1190	.23*
EBR	1	1700	100	.06	360	.21
WBL	2	3400	580	.17*	540	.16*
WBT	4	6800	1240	.18	1000	.15
WBR	1	1700	330	.19	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.65** **.65**

5. Antonio & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	430	.08*	500	.10*
NBT	3	5100	650	.13	660	.13
NBR	1	1700	390	.23	430	.25
SBL	2	3400	190	.06	70	.02
SBT	4	6800	870	.13*	830	.12*
SBR	f		930		750	
EBL	2	3400	700	.21*	920	.27*
EBT	3	5100	580	.11	960	.19
EBR	1	1700	250	.15	470	.28
WBL	2	3400	590	.17	340	.10
WBT	4	6800	1010	.15*	750	.11*
WBR	1	1700	190	.11	80	.05
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.62** **.65**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	430	.08*	500	.10*
NBT	3	5100	650	.13	660	.13
NBR	1	1700	390	.23	430	.25
SBL	2	3400	190	.06	80	.02
SBT	4	6800	870	.13*	830	.12*
SBR	f		930		750	
EBL	2	3400	700	.21*	920	.27*
EBT	3	5100	590	.12	980	.19
EBR	1	1700	250	.15	470	.28
WBL	2	3400	590	.17	340	.10
WBT	4	6800	1030	.15*	760	.11*
WBR	1	1700	200	.12	80	.05
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.62** **.65**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	430	.08*	500	.10*
NBT	3	5100	650	.13	660	.13
NBR	1	1700	390	.23	430	.25
SBL	2	3400	190	.06	80	.02
SBT	4	6800	870	.13*	830	.12*
SBR	f		930		750	
EBL	2	3400	700	.21*	920	.27*
EBT	3	5100	590	.12	990	.19
EBR	1	1700	250	.15	470	.28
WBL	2	3400	590	.17	340	.10
WBT	4	6800	1040	.15*	760	.11*
WBR	1	1700	200	.12	80	.05
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.62** **.65**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	430	.08*	500	.10*
NBT	3	5100	650	.13	660	.13
NBR	1	1700	390	.23	430	.25
SBL	2	3400	190	.06	80	.02
SBT	4	6800	870	.13*	830	.12*
SBR	f		930		750	
EBL	2	3400	700	.21*	920	.27*
EBT	3	5100	590	.12	1000	.20
EBR	1	1700	250	.15	470	.28
WBL	2	3400	590	.17	340	.10
WBT	4	6800	1050	.15*	770	.11*
WBR	1	1700	200	.12	80	.05
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.62** **.65**

6. Tesoro Creek & Oso

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	530	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	270	.16	20	.01
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	680	.20*	970	.29*
EBR	2	3400	890	.26	40	.01
WBL	2	3400	440	.13*	30	.01*
WBT	3	5100	930	.18	860	.17
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.37**

6. Tesoro Creek & Oso

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	50	.01*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1340	.39*	1530	.45*
EBR	2	3400	860	.25	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1580	.31	1570	.31
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.52**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	50	.01*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1350	.40*	1560	.46*
EBR	2	3400	860	.25	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1610	.32	1590	.31
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.53**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	50	.01*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1350	.40*	1570	.46*
EBR	2	3400	860	.25	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1620	.32	1590	.31
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.53**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	50	.01*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1350	.40*	1580	.46*
EBR	2	3400	860	.25	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1630	.32	1600	.31
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.53**

6. Tesoro Creek & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1470	.43*	1670	.49*
EBR	2	3400	870	.26	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1630	.32	1720	.34
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1480	.44*	1700	.50*
EBR	2	3400	870	.26	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1660	.33	1740	.34
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.78**		**.58**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1480	.44*	1710	.50*
EBR	2	3400	870	.26	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1670	.33	1740	.34
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.78**		**.58**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	270	.16	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1480	.44*	1720	.51*
EBR	2	3400	870	.26	40	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1680	.33	1750	.34
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.78**		**.59**

6. Tesoro Creek & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	260	.15	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	720	.21*	1290	.38*
EBR	2	3400	880	.26	50	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1210	.24	1030	.20
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.55** **.46**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	260	.15	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	730	.21*	1310	.39*
EBR	2	3400	880	.26	50	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1240	.24	1050	.21
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.55** **.47**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	260	.15	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	730	.21*	1320	.39*
EBR	2	3400	880	.26	50	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1250	.25	1050	.21
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.55** **.47**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	540	.16*	60	.02*
NBT	0	0	0		0	
NBR	1	1700	260	.15	30	.02
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	730	.21*	1330	.39*
EBR	2	3400	880	.26	50	.01
WBL	2	3400	450	.13*	30	.01*
WBT	3	5100	1260	.25	1060	.21
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.55** **.47**

7. SR-241 SB Off & Oso Pkwy

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		50	.03*	210	
SBT	0	5100	0		0	{.09}*
SBR	1.5		190	.06	340	
EBL	0	0	0		0	
EBT	3	5100	950	.19	990	.19*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1180	.23*	550	.11
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.34**		**.33**

7. SR-241 SB/Los Patrones & Oso

Alternative Existing Baseline (No Project)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	40	.01	320	.09
SBT	2	3400	470	.14*	840	.25*
SBR	1	1700	60	.04	190	.11
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	f		870		1030	
WBL	1	1700	230	.14	120	.07
WBT	3	5100	1960	.38*	1410	.28*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.58**

Alternative Existing Baseline (Project Alt. 1)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	40	.01	320	.09
SBT	2	3400	480	.14*	850	.25*
SBR	1	1700	60	.04	190	.11
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	f		880		1060	
WBL	1	1700	230	.14	120	.07
WBT	3	5100	1990	.39*	1430	.28*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.58**

Alternative Existing Baseline (Project Alt. 2)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	40	.01	320	.09
SBT	2	3400	480	.14*	850	.25*
SBR	1	1700	60	.04	190	.11
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	f		880		1070	
WBL	1	1700	230	.14	120	.07
WBT	3	5100	2000	.39*	1430	.28*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.58**

Alternative Existing Baseline (Project Alt. 3)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	40	.01	320	.09
SBT	2	3400	480	.14*	860	.25*
SBR	1	1700	60	.04	190	.11
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	f		880		1080	
WBL	1	1700	230	.14	120	.07
WBT	3	5100	2010	.39*	1440	.28*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.58**

7. SR-241 SB/Los Patrones & Oso

Alternative Existing Baseline (No Project)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		40		320	
SBT	0	5100	0	.02*	0	.10*
SBR	1.5		60		190	
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	1	1700	870	.51	1030	.61
WBL	1	1700	230	.14	120	.07
WBT	3	5100	1960	.38*	1410	.28*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.25*	EBR	.32*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.70**		**.75**

Alternative Existing Baseline (Project Alt. 1)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		40		320	
SBT	0	5100	0	.02*	0	.10*
SBR	1.5		60		190	
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	1	1700	880	.52	1060	.62
WBL	1	1700	230	.14	120	.07
WBT	3	5100	1990	.39*	1430	.28*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.26*	EBR	.33*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.76**

Alternative Existing Baseline (Project Alt. 2)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		40		320	
SBT	0	5100	0	.02*	0	.10*
SBR	1.5		60		190	
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	1	1700	880	.52	1070	.63
WBL	1	1700	230	.14	120	.07
WBT	3	5100	2000	.39*	1430	.28*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.26*	EBR	.34*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.77**

Alternative Existing Baseline (Project Alt. 3)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		40		320	
SBT	0	5100	0	.02*	0	.10*
SBR	1.5		60		190	
EBL	0	0	0		0	
EBT	3	5100	780	.15	610	.12
EBR	1	1700	880	.52	1080	.64
WBL	1	1700	230	.14	120	.07
WBT	3	5100	2010	.39*	1440	.28*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.26*	EBR	.35*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.78**

7. SR-241 SB/Los Patrones & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	30	.01	330	.10
SBT	2	3400	580	.17*	1070	.31*
SBR	1	1700	70	.04	320	.19
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	f		920		1120	
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2000	.39*	1440	.28*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.64**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	30	.01	330	.10
SBT	2	3400	590	.17*	1080	.32*
SBR	1	1700	70	.04	320	.19
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	f		930		1150	
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2030	.40*	1460	.29*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	30	.01	330	.10
SBT	2	3400	590	.17*	1080	.32*
SBR	1	1700	70	.04	320	.19
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	f		930		1160	
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2040	.40*	1460	.29*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	30	.01	330	.10
SBT	2	3400	590	.17*	1090	.32*
SBR	1	1700	70	.04	320	.19
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	f		930		1170	
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2050	.40*	1470	.29*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.66**

7. SR-241 SB/Los Patrones & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		30	.02*	330	
SBT	0	5100	0		0	.13*
SBR	1.5		70	.02	320	
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	1	1700	920	.54	1120	.66
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2000	.39*	1440	.28*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.29*	EBR	.34*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.80**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		30	.02*	330	
SBT	0	5100	0		0	.13*
SBR	1.5		70	.02	320	
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	1	1700	930	.55	1150	.68
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2030	.40*	1460	.29*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.29*	EBR	.35*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.76**		**.82**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		30	.02*	330	
SBT	0	5100	0		0	.13*
SBR	1.5		70	.02	320	
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	1	1700	930	.55	1160	.68
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2040	.40*	1460	.29*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.29*	EBR	.35*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.76**		**.82**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		30	.02*	330	
SBT	0	5100	0		0	.13*
SBR	1.5		70	.02	320	
EBL	0	0	0		0	
EBT	3	5100	880	.17	680	.13
EBR	1	1700	930	.55	1170	.69
WBL	1	1700	280	.16	100	.06
WBT	3	5100	2050	.40*	1470	.29*
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.29*	EBR	.36*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.76**		**.83**

7. SR-241 SB Ramps & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		50		180	.05*
SBT	0	5100	0	.03*	0	
SBR	1.5		80		60	.04
EBL	0	0	0		0	
EBT	3	5100	670	.13	780	.15*
EBR	1	1700	290	.17	580	.34
WBL	1	1700	110	.06	100	.06*
WBT	3	5100	1570	.31*	1000	.20
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.15*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.39**		**.46**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		50		180	.05*
SBT	0	5100	0	.03*	0	
SBR	1.5		80		60	.04
EBL	0	0	0		0	
EBT	3	5100	670	.13	780	.15*
EBR	1	1700	300	.18	610	.36
WBL	1	1700	110	.06	100	.06*
WBT	3	5100	1600	.31*	1020	.20
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.17*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.39**		**.48**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		50		180	.05*
SBT	0	5100	0	.03*	0	
SBR	1.5		80		60	.04
EBL	0	0	0		0	
EBT	3	5100	670	.13	780	.15*
EBR	1	1700	300	.18	620	.36
WBL	1	1700	110	.06	100	.06*
WBT	3	5100	1610	.32*	1020	.20
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.17*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.40**		**.48**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		50		180	.05*
SBT	0	5100	0	.03*	0	
SBR	1.5		80		60	.04
EBL	0	0	0		0	
EBT	3	5100	670	.13	780	.15*
EBR	1	1700	300	.18	630	.37
WBL	1	1700	110	.06	100	.06*
WBT	3	5100	1620	.32*	1030	.20
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.18*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.40**		**.49**

8. SR-241 NB On & Oso Pkwy

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	430	.25*	160	.09*
EBT	3	5100	570	.11	1040	.20
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	1180	.35*	550	.16*
WBR	1	1700	280	.16	90	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.30**

8. SR-241 NB/Los Patrones & Oso

Alternative Existing Baseline (No Project)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	990	.29*	890	.26*
NBT	2	3400	790	.23	440	.13
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.23*	570	.11
WBR	1	1700	320	.19	50	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.66** **.55**

Alternative Existing Baseline (Project Alt. 1)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1020	.30*	910	.27*
NBT	2	3400	800	.24	450	.13
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.23*	570	.11
WBR	1	1700	320	.19	50	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.67** **.56**

Alternative Existing Baseline (Project Alt. 2)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1030	.30*	910	.27*
NBT	2	3400	800	.24	450	.13
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.23*	570	.11
WBR	1	1700	320	.19	50	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.67** **.56**

Alternative Existing Baseline (Project Alt. 3)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1040	.31*	920	.27*
NBT	2	3400	810	.24	450	.13
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.23*	570	.11
WBR	1	1700	320	.19	50	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.68** **.56**

8. SR-241 NB/Los Patrones & Oso

Alternative Existing Baseline (No Project)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	990	.29*	890	.26*
NBT	0	0	0		0	
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.29*	570	.12
WBR	0	0	320		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.72** **.55**

Alternative Existing Baseline (Project Alt. 1)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1020	.30*	910	.27*
NBT	0	0	0		0	
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.29*	570	.12
WBR	0	0	320		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.56**

Alternative Existing Baseline (Project Alt. 2)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1030	.30*	910	.27*
NBT	0	0	0		0	
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.29*	570	.12
WBR	0	0	320		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.56**

Alternative Existing Baseline (Project Alt. 3)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1040	.31*	920	.27*
NBT	0	0	0		0	
NBR	1	1700	70	.04	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	290	.09*	40	.01
EBT	2	3400	540	.16	830	.24*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1160	.29*	570	.12
WBR	0	0	320		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.74** **.56**

8. SR-241 NB/Los Patrones & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	980	.29	890	.26*
NBT	2	3400	1030	.30*	600	.18
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.24*	570	.11
WBR	1	1700	360	.21	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.70**		**.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1010	.30	910	.27*
NBT	2	3400	1040	.31*	610	.18
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.24*	570	.11
WBR	1	1700	360	.21	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.58**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1020	.30	910	.27*
NBT	2	3400	1040	.31*	610	.18
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.24*	570	.11
WBR	1	1700	360	.21	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.58**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3
Without Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1030	.30	920	.27*
NBT	2	3400	1050	.31*	610	.18
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.24*	570	.11
WBR	1	1700	360	.21	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.58**

8. SR-241 NB/Los Patrones & Oso

2035 Cumulative w/o SR-241 Ext. (No Project)
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	980	.29*	890	.26*
NBT	0	0	0		0	
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.31*	570	.12
WBR	0	0	360		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.76**		**.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1010	.30*	910	.27*
NBT	0	0	0		0	
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.31*	570	.12
WBR	0	0	360		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.58**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1020	.30*	910	.27*
NBT	0	0	0		0	
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.31*	570	.12
WBR	0	0	360		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.58**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3
With Oso Parkway Bridge at SR-241/Los Patrones

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	1030	.30*	920	.27*
NBT	0	0	0		0	
NBR	1	1700	80	.05	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	390	.11*	40	.01
EBT	2	3400	530	.16	890	.26*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1240	.31*	570	.12
WBR	0	0	360		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.58**

8. SR-241 NB Ramps & Oso

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	430	.13*	450	.13*
NBT	0	0	0		0	
NBR	1	1700	40	.02	100	.06
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	160	.05*	50	.01
EBT	2	3400	570	.17	940	.28*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1300	.30*	650	.14
WBR	0	0	240		70	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.46**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	470	.14*
NBT	0	0	0		0	
NBR	1	1700	40	.02	100	.06
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	160	.05*	50	.01
EBT	2	3400	570	.17	940	.28*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1300	.30*	650	.14
WBR	0	0	240		70	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.47**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	470	.14*	470	.14*
NBT	0	0	0		0	
NBR	1	1700	40	.02	100	.06
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	160	.05*	50	.01
EBT	2	3400	570	.17	940	.28*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1300	.30*	650	.14
WBR	0	0	240		70	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.47**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	480	.14*	480	.14*
NBT	0	0	0		0	
NBR	1	1700	40	.02	100	.06
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	160	.05*	50	.01
EBT	2	3400	570	.17	940	.28*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1300	.30*	650	.14
WBR	0	0	240		70	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.47**

9. Marguerite & Felipe

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01	30	.02
NBT	2	3400	670	.20*	840	.25*
NBR	1	1700	390	.23	460	.27
SBL	1	1700	110	.06*	310	.18*
SBT	2	3400	730	.21	930	.27
SBR	d	1700	30	.02	40	.02
EBL	1	1700	50	.03	50	.03
EBT	1	1700	80	.06*	50	.04*
EBR	0	0	20		20	
WBL	1.5		870	{.27}*	340	{.10}*
WBT	0.5	3400	50	.27	10	.10
WBR	1	1700	320	.19	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.62**

9. Marguerite & Felipe

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01	30	.02
NBT	2	3400	670	.20*	860	.25*
NBR	1	1700	400	.24	500	.29
SBL	1	1700	110	.06*	300	.18*
SBT	2	3400	720	.21	930	.27
SBR	d	1700	30	.02	50	.03
EBL	1	1700	40	.02	50	.03
EBT	1	1700	80	.06*	60	.05*
EBR	0	0	20		20	
WBL	1.5		890	{.27}*	390	{.12}*
WBT	0.5	3400	40	.27	10	.12
WBR	1	1700	350	.21	100	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.65**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01	30	.02
NBT	2	3400	670	.20*	860	.25*
NBR	1	1700	400	.24	500	.29
SBL	1	1700	110	.06*	300	.18*
SBT	2	3400	720	.21	930	.27
SBR	d	1700	30	.02	50	.03
EBL	1	1700	40	.02	50	.03
EBT	1	1700	80	.06*	60	.05*
EBR	0	0	20		20	
WBL	1.5		890	{.27}*	390	{.12}*
WBT	0.5	3400	40	.27	10	.12
WBR	1	1700	350	.21	100	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.65**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01	30	.02
NBT	2	3400	670	.20*	860	.25*
NBR	1	1700	400	.24	500	.29
SBL	1	1700	110	.06*	300	.18*
SBT	2	3400	720	.21	930	.27
SBR	d	1700	30	.02	50	.03
EBL	1	1700	40	.02	50	.03
EBT	1	1700	80	.06*	60	.05*
EBR	0	0	20		20	
WBL	1.5		890	{.27}*	390	{.12}*
WBT	0.5	3400	40	.27	10	.12
WBR	1	1700	350	.21	100	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.65**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01	30	.02
NBT	2	3400	670	.20*	860	.25*
NBR	1	1700	400	.24	500	.29
SBL	1	1700	110	.06*	300	.18*
SBT	2	3400	720	.21	930	.27
SBR	d	1700	30	.02	50	.03
EBL	1	1700	40	.02	50	.03
EBT	1	1700	80	.06*	60	.05*
EBR	0	0	20		20	
WBL	1.5		890	{.27}*	390	{.12}*
WBT	0.5	3400	40	.27	10	.12
WBR	1	1700	350	.21	100	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.65**

9. Marguerite & Felipe

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	810	.24*	850	.25*
NBR	1	1700	440	.26	490	.29
SBL	2	3400	110	.03*	350	.10*
SBT	2	3400	690	.20	980	.29
SBR	d	1700	10	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1010	{.31}*	400	{.13}*
WBT	0.5	3400	60	.31	30	.13
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	810	.24*	850	.25*
NBR	1	1700	440	.26	490	.29
SBL	2	3400	110	.03*	350	.10*
SBT	2	3400	690	.20	980	.29
SBR	d	1700	10	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1010	{.31}*	400	{.13}*
WBT	0.5	3400	60	.31	30	.13
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	810	.24*	850	.25*
NBR	1	1700	440	.26	490	.29
SBL	2	3400	110	.03*	350	.10*
SBT	2	3400	690	.20	980	.29
SBR	d	1700	10	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1010	{.31}*	400	{.13}*
WBT	0.5	3400	60	.31	30	.13
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	810	.24*	850	.25*
NBR	1	1700	440	.26	490	.29
SBL	2	3400	110	.03*	350	.10*
SBT	2	3400	690	.20	980	.29
SBR	d	1700	10	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1010	{.31}*	400	{.13}*
WBT	0.5	3400	60	.31	30	.13
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.57**

9. Marguerite & Felipe

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	790	.23*	810	.24*
NBR	1	1700	470	.28	480	.28
SBL	2	3400	110	.03*	360	.11*
SBT	2	3400	670	.20	940	.28
SBR	d	1700	20	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1040	{.32}*	360	{.11}*
WBT	0.5	3400	50	.32	30	.11
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.55**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	790	.23*	810	.24*
NBR	1	1700	470	.28	480	.28
SBL	2	3400	110	.03*	360	.11*
SBT	2	3400	670	.20	940	.28
SBR	d	1700	20	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1040	{.32}*	360	{.11}*
WBT	0.5	3400	50	.32	30	.11
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.55**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	790	.23*	810	.24*
NBR	1	1700	470	.28	480	.28
SBL	2	3400	110	.03*	360	.11*
SBT	2	3400	670	.20	940	.28
SBR	d	1700	20	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1040	{.32}*	360	{.11}*
WBT	0.5	3400	50	.32	30	.11
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.55**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	50	.03	30	.02
NBT	2	3400	790	.23*	810	.24*
NBR	1	1700	470	.28	480	.28
SBL	2	3400	110	.03*	360	.11*
SBT	2	3400	670	.20	940	.28
SBR	d	1700	20	.01	30	.02
EBL	1	1700	60	.04	50	.03
EBT	1	1700	50	.05*	60	.04*
EBR	0	0	30		10	
WBL	1.5		1040	{.32}*	360	{.11}*
WBT	0.5	3400	50	.32	30	.11
WBR	1	1700	360	.21	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.55**

10. I-5 SB Ramps & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1160	.23*	1110	.22*
SBT	0	0	0		0	
SBR	2	3400	770	.23	1010	.30
EBL	0	0	0		0	
EBT	5	8500	1410	.17*	1820	.21*
EBR	1	1700	180	.11	270	.16
WBL	2	3400	390	.11*	530	.16*
WBT	3	5100	1230	.24	1260	.25
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.64**

10. I-5 SB Ramps & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1290	.25*	1120	.22*
SBT	0	0	0		0	
SBR	2	3400	790	.23	990	.29
EBL	0	0	0		0	
EBT	5	8500	1410	.17*	1930	.23*
EBR	1	1700	210	.12	260	.15
WBL	2	3400	360	.11*	540	.16*
WBT	3	5100	1210	.24	1260	.25
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.66**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1290	.25*	1130	.22*
SBT	0	0	0		0	
SBR	2	3400	790	.23	990	.29
EBL	0	0	0		0	
EBT	5	8500	1410	.17*	1940	.23*
EBR	1	1700	210	.12	260	.15
WBL	2	3400	360	.11*	540	.16*
WBT	3	5100	1220	.24	1260	.25
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.66**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1290	.25*	1130	.22*
SBT	0	0	0		0	
SBR	2	3400	790	.23	990	.29
EBL	0	0	0		0	
EBT	5	8500	1410	.17*	1940	.23*
EBR	1	1700	210	.12	260	.15
WBL	2	3400	360	.11*	540	.16*
WBT	3	5100	1220	.24	1260	.25
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.66**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1290	.25*	1130	.22*
SBT	0	0	0		0	
SBR	2	3400	790	.23	990	.29
EBL	0	0	0		0	
EBT	5	8500	1410	.17*	1940	.23*
EBR	1	1700	210	.12	260	.15
WBL	2	3400	360	.11*	540	.16*
WBT	3	5100	1220	.24	1260	.25
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.66**

10. I-5 SB Ramps & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1180	.23*	1380	.27*
SBT	0	0	0		0	
SBR	2	3400	710	.21	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1690	.20*	1810	.21*
EBR	1	1700	230	.14	320	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1280	.25	1390	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1180	.23*	1390	.27*
SBT	0	0	0		0	
SBR	2	3400	710	.21	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1690	.20*	1820	.21*
EBR	1	1700	230	.14	320	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1290	.25	1390	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1180	.23*	1390	.27*
SBT	0	0	0		0	
SBR	2	3400	710	.21	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1690	.20*	1820	.21*
EBR	1	1700	230	.14	320	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1290	.25	1390	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1180	.23*	1390	.27*
SBT	0	0	0		0	
SBR	2	3400	710	.21	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1690	.20*	1820	.21*
EBR	1	1700	230	.14	320	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1290	.25	1390	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.67**

10. I-5 SB Ramps & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1270	.25*	1500	.29*
SBT	0	0	0		0	
SBR	2	3400	760	.22	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1660	.20*	1800	.21*
EBR	1	1700	240	.14	330	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1220	.24	1380	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.69**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1270	.25*	1510	.30*
SBT	0	0	0		0	
SBR	2	3400	760	.22	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1660	.20*	1810	.21*
EBR	1	1700	240	.14	330	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1230	.24	1380	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.70**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1270	.25*	1510	.30*
SBT	0	0	0		0	
SBR	2	3400	760	.22	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1660	.20*	1810	.21*
EBR	1	1700	240	.14	330	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1230	.24	1380	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.70**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	5100	1270	.25*	1510	.30*
SBT	0	0	0		0	
SBR	2	3400	760	.22	1060	.31
EBL	0	0	0		0	
EBT	5	8500	1660	.20*	1810	.21*
EBR	1	1700	240	.14	330	.19
WBL	2	3400	370	.11*	490	.14*
WBT	3	5100	1230	.24	1380	.27
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.70**

11. I-5 NB Ramps & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		220	.13*	180	.11*
NBT	0	5100	0		0	
NBR	1.5		500	.15	390	.11
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2010	.30*	2290	.34*
EBR	f		560		640	
WBL	0	0	0		0	
WBT	3	5100	1400	.27	1610	.32
WBR	f		1100		1300	
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.50**

11. I-5 NB Ramps & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		190	.11*	230	{.13}*
NBT	0	5100	0		0	.13
NBR	1.5		490	.14	410	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2350	.35*
EBR	f		590		700	
WBL	0	0	0		0	
WBT	3	5100	1390	.27	1590	.31
WBR	f		1200		1510	
Right Turn Adjustment			NBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.53**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		190	.11*	230	{.13}*
NBT	0	5100	0		0	.13
NBR	1.5		490	.14	410	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2360	.35*
EBR	f		590		700	
WBL	0	0	0		0	
WBT	3	5100	1400	.27	1590	.31
WBR	f		1210		1520	
Right Turn Adjustment			NBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.53**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		190	.11*	230	{.13}*
NBT	0	5100	0		0	.13
NBR	1.5		490	.14	410	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2360	.35*
EBR	f		590		700	
WBL	0	0	0		0	
WBT	3	5100	1400	.27	1590	.31
WBR	f		1210		1520	
Right Turn Adjustment			NBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.53**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		190	.11*	230	{.13}*
NBT	0	5100	0		0	.13
NBR	1.5		490	.14	410	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2360	.35*
EBR	f		590		700	
WBL	0	0	0		0	
WBT	3	5100	1400	.27	1590	.31
WBR	f		1210		1520	
Right Turn Adjustment			NBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.53**

11. I-5 NB Ramps & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.13}*
NBT	0	5100	0	.17	0	.13
NBR	1.5		540		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2040	.30*	2580	.38*
EBR	f		760		510	
WBL	0	0	0		0	
WBT	3	5100	1390	.27	1670	.33
WBR	f		1210		1480	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.56**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.13}*
NBT	0	5100	0	.17	0	.13
NBR	1.5		540		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2040	.30*	2590	.38*
EBR	f		760		510	
WBL	0	0	0		0	
WBT	3	5100	1400	.27	1670	.33
WBR	f		1220		1490	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.56**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.13}*
NBT	0	5100	0	.17	0	.13
NBR	1.5		540		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2040	.30*	2590	.38*
EBR	f		760		510	
WBL	0	0	0		0	
WBT	3	5100	1400	.27	1670	.33
WBR	f		1220		1490	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.56**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.13}*
NBT	0	5100	0	.17	0	.13
NBR	1.5		540		440	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2040	.30*	2590	.38*
EBR	f		760		510	
WBL	0	0	0		0	
WBT	3	5100	1400	.27	1670	.33
WBR	f		1220		1490	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.56**

11. I-5 NB Ramps & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.14}*
NBT	0	5100	0	.17	0	.14
NBR	1.5		550		450	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2630	.39*
EBR	f		760		580	
WBL	0	0	0		0	
WBT	3	5100	1330	.26	1660	.33
WBR	f		1300		1560	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.58**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.14}*
NBT	0	5100	0	.17	0	.14
NBR	1.5		550		450	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2640	.39*
EBR	f		760		580	
WBL	0	0	0		0	
WBT	3	5100	1340	.26	1660	.33
WBR	f		1310		1560	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.58**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.14}*
NBT	0	5100	0	.17	0	.14
NBR	1.5		550		450	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2640	.39*
EBR	f		760		580	
WBL	0	0	0		0	
WBT	3	5100	1340	.26	1660	.33
WBR	f		1310		1560	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.58**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		330	{.17}*	240	{.14}*
NBT	0	5100	0	.17	0	.14
NBR	1.5		550		450	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6800	2100	.31*	2640	.39*
EBR	f		760		580	
WBL	0	0	0		0	
WBT	3	5100	1340	.26	1660	.33
WBR	f		1310		1560	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.58**

12. Puerta Real & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	60	.02*	300	.09*
NBT	1	1700	30	.02	50	.03
NBR	1	1700	10	.01	110	.06
SBL	1	1700	20	.01	70	.04
SBT	1	1700	40	.02*	30	.02*
SBR	2	3400	270	.08	360	.11
EBL	2	3400	410	.12*	200	.06*
EBT	4	6800	1900	.28	2070	.30
EBR	1	1700	160	.09	320	.19
WBL	2	3400	30	.01	60	.02
WBT	4	6800	2250	.34*	2080	.31*
WBR	0	0	50		50	
Right Turn Adjustment					SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.57**

12. Puerta Real & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	60	.02*	220	.06
NBT	1	1700	30	.02	50	.03*
NBR	1	1700	10	.01	80	.05
SBL	1	1700	20	.01	80	.05*
SBT	1	1700	40	.02*	30	.02
SBR	2	3400	270	.08	340	.10
EBL	2	3400	420	.12*	200	.06*
EBT	4	6800	1970	.29	2140	.31
EBR	1	1700	130	.08	300	.18
WBL	2	3400	30	.01	70	.02
WBT	4	6800	2310	.35*	2180	.33*
WBR	0	0	60		60	
Right Turn Adjustment					SBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.55**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	60	.02*	220	.06
NBT	1	1700	30	.02	50	.03*
NBR	1	1700	10	.01	80	.05
SBL	1	1700	20	.01	80	.05*
SBT	1	1700	40	.02*	30	.02
SBR	2	3400	270	.08	340	.10
EBL	2	3400	420	.12*	200	.06*
EBT	4	6800	1980	.29	2150	.32
EBR	1	1700	130	.08	300	.18
WBL	2	3400	30	.01	70	.02
WBT	4	6800	2320	.35*	2190	.33*
WBR	0	0	60		60	
Right Turn Adjustment					SBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.55**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	60	.02*	220	.06
NBT	1	1700	30	.02	50	.03*
NBR	1	1700	10	.01	80	.05
SBL	1	1700	20	.01	80	.05*
SBT	1	1700	40	.02*	30	.02
SBR	2	3400	270	.08	340	.10
EBL	2	3400	420	.12*	200	.06*
EBT	4	6800	1980	.29	2150	.32
EBR	1	1700	130	.08	300	.18
WBL	2	3400	30	.01	70	.02
WBT	4	6800	2320	.35*	2190	.33*
WBR	0	0	60		60	
Right Turn Adjustment					SBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.55**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	60	.02*	220	.06
NBT	1	1700	30	.02	50	.03*
NBR	1	1700	10	.01	80	.05
SBL	1	1700	20	.01	80	.05*
SBT	1	1700	40	.02*	30	.02
SBR	2	3400	270	.08	340	.10
EBL	2	3400	420	.12*	200	.06*
EBT	4	6800	1980	.29	2160	.32
EBR	1	1700	130	.08	300	.18
WBL	2	3400	30	.01	70	.02
WBT	4	6800	2330	.35*	2190	.33*
WBR	0	0	60		60	
Right Turn Adjustment					SBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.55**

12. Puerta Real & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	20	.01	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	430	.13*
EBT	4	6800	1230	.18	1600	.24
EBR	1	1700	310	.18	630	.37
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2000	.30*	1530	.23*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.71**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	20	.01	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	430	.13*
EBT	4	6800	1240	.18	1610	.24
EBR	1	1700	310	.18	630	.37
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2010	.30*	1540	.24*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.72**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	20	.01	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	430	.13*
EBT	4	6800	1240	.18	1610	.24
EBR	1	1700	310	.18	630	.37
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2010	.30*	1540	.24*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.72**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	20	.01	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	430	.13*
EBT	4	6800	1240	.18	1620	.24
EBR	1	1700	310	.18	630	.37
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2020	.30*	1540	.24*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.72**

12. Puerta Real & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	30	.02	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	440	.13*
EBT	4	6800	1310	.19	1650	.24
EBR	1	1700	310	.18	620	.36
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2060	.31*	1590	.24*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	30	.02	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	440	.13*
EBT	4	6800	1320	.19	1660	.24
EBR	1	1700	310	.18	620	.36
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2070	.31*	1600	.24*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	30	.02	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	440	.13*
EBT	4	6800	1320	.19	1660	.24
EBR	1	1700	310	.18	620	.36
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2070	.31*	1600	.24*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01*	530	.16*
NBT	1	1700	100	.06	80	.05
NBR	1	1700	10	.01	90	.05
SBL	1	1700	30	.02	110	.06
SBT	1	1700	130	.08*	80	.05*
SBR	2	3400	410	.12	800	.24
EBL	2	3400	440	.13*	440	.13*
EBT	4	6800	1320	.19	1670	.25
EBR	1	1700	310	.18	620	.36
WBL	2	3400	20	.01	110	.03
WBT	4	6800	2080	.31*	1600	.24*
WBR	0	0	40		60	
Right Turn Adjustment					SBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.72**

13. Medical Cntr & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		250	.07*	550	.16*
NBT	1.5	5100	20	.04	40	.06
NBR	0		40		70	
SBL	0	0	30		70	
SBT	1	1700	20	.03*	30	.06*
SBR	1	1700	80	.05	130	.08
EBL	1	1700	100	.06*	90	.05
EBT	4	6800	1270	.25	1920	.32*
EBR	0	0	560	.33	240	
WBL	2	3400	170	.05	100	.03*
WBT	4	6800	2000	.30*	1510	.23
WBR	0	0	70		40	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.51**		**.62**

13. Medical Cntr & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		240	.07*	530	.16*
NBT	1.5	5100	20	.04	40	.13
NBR	0		40		180	
SBL	0	0	30		70	
SBT	1	1700	20	.03*	30	.06*
SBR	1	1700	70	.04	130	.08
EBL	1	1700	90	.05*	80	.05
EBT	4	6800	1440	.28	1960	.33*
EBR	0	0	500	.29	250	
WBL	2	3400	280	.08	100	.03*
WBT	4	6800	2080	.32*	1780	.27
WBR	0	0	70		40	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.63**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		240	.07*	530	.16*
NBT	1.5	5100	20	.04	40	.13
NBR	0		40		180	
SBL	0	0	30		70	
SBT	1	1700	20	.03*	30	.06*
SBR	1	1700	70	.04	130	.08
EBL	1	1700	90	.05*	80	.05
EBT	4	6800	1450	.28	1980	.33*
EBR	0	0	500	.29	250	
WBL	2	3400	280	.08	100	.03*
WBT	4	6800	2100	.32*	1790	.27
WBR	0	0	70		40	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.63**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		240	.07*	530	.16*
NBT	1.5	5100	20	.04	40	.13
NBR	0		40		180	
SBL	0	0	30		70	
SBT	1	1700	20	.03*	30	.06*
SBR	1	1700	70	.04	130	.08
EBL	1	1700	90	.05*	80	.05
EBT	4	6800	1450	.28	1980	.33*
EBR	0	0	500	.29	250	
WBL	2	3400	280	.08	100	.03*
WBT	4	6800	2100	.32*	1790	.27
WBR	0	0	70		40	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.63**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		240	.07*	530	.16*
NBT	1.5	5100	20	.04	40	.13
NBR	0		40		180	
SBL	0	0	30		70	
SBT	1	1700	20	.03*	30	.06*
SBR	1	1700	70	.04	130	.08
EBL	1	1700	90	.05*	80	.05
EBT	4	6800	1450	.28	1990	.33*
EBR	0	0	500	.29	250	
WBL	2	3400	280	.08	100	.03*
WBT	4	6800	2110	.32*	1800	.27
WBR	0	0	70		40	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.63**

13. Medical Cntr & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	.09*	500	.15*
NBT	1.5	5100	50	.07	40	.08
NBR	0		70		100	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1080	.21	1350	.25*
EBR	0	0	370	.22	370	
WBL	2	3400	190	.06	140	.04*
WBT	4	6800	1610	.24*	1030	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.55**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	.09*	500	.15*
NBT	1.5	5100	50	.07	40	.08
NBR	0		70		100	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1090	.21	1370	.26*
EBR	0	0	370	.22	370	
WBL	2	3400	190	.06	140	.04*
WBT	4	6800	1630	.24*	1040	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.56**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	.09*	500	.15*
NBT	1.5	5100	50	.07	40	.08
NBR	0		70		100	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1090	.21	1370	.26*
EBR	0	0	370	.22	370	
WBL	2	3400	190	.06	140	.04*
WBT	4	6800	1630	.24*	1040	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.56**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		320	.09*	500	.15*
NBT	1.5	5100	50	.07	40	.08
NBR	0		70		100	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1090	.21	1380	.26*
EBR	0	0	370	.22	370	
WBL	2	3400	190	.06	140	.04*
WBT	4	6800	1640	.24*	1050	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.56**

13. Medical Cntr & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		300	.09*	520	.15*
NBT	1.5	5100	50	.06	40	.07
NBR	0		60		80	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1130	.22	1380	.26*
EBR	0	0	390	.23	380	
WBL	2	3400	180	.05	130	.04*
WBT	4	6800	1700	.25*	1070	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.48**		**.56**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		300	.09*	520	.15*
NBT	1.5	5100	50	.06	40	.07
NBR	0		60		80	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1140	.22	1400	.26*
EBR	0	0	390	.23	380	
WBL	2	3400	180	.05	130	.04*
WBT	4	6800	1720	.26*	1080	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.56**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		300	.09*	520	.15*
NBT	1.5	5100	50	.06	40	.07
NBR	0		60		80	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1140	.22	1400	.26*
EBR	0	0	390	.23	380	
WBL	2	3400	180	.05	130	.04*
WBT	4	6800	1720	.26*	1080	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.56**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		300	.09*	520	.15*
NBT	1.5	5100	50	.06	40	.07
NBR	0		60		80	
SBL	0	0	10		50	
SBT	1	1700	50	.04*	60	.06*
SBR	1	1700	100	.06	120	.07
EBL	1	1700	90	.05*	110	.06
EBT	4	6800	1140	.22	1410	.26*
EBR	0	0	390	.23	380	
WBL	2	3400	180	.05	130	.04*
WBT	4	6800	1730	.26*	1090	.16
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.56**

14. Los Altos & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		20	{.01}*	150	{.04}*
NBT	0.5	3400	0	.01	0	.04
NBR	1	1700	20	.01	100	.06
SBL	0	0	50		120	
SBT	1	1700	0	.03*	0	.07*
SBR	1	1700	30	.02	100	.06
EBL	1	1700	110	.06*	60	.04
EBT	4	6800	1160	.18	1980	.29*
EBR	0	0	70		20	
WBL	1	1700	140	.08	10	.01*
WBT	4	6800	2190	.34*	1400	.21
WBR	0	0	110		60	
Right Turn Adjustment					NBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.47**

14. Los Altos & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		20	{.01}*	140	{.04}*
NBT	0.5	3400	10	.01	10	.04
NBR	1	1700	20	.01	100	.06
SBL	0	0	50		120	
SBT	1	1700	10	.04*	10	.08*
SBR	1	1700	30	.02	90	.05
EBL	1	1700	110	.06*	50	.03
EBT	4	6800	1350	.21	2120	.31*
EBR	0	0	70		20	
WBL	1	1700	140	.08	10	.01*
WBT	4	6800	2400	.37*	1690	.26
WBR	0	0	110		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.49**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		20	{.01}*	140	{.04}*
NBT	0.5	3400	10	.01	10	.04
NBR	1	1700	20	.01	100	.06
SBL	0	0	50		120	
SBT	1	1700	10	.04*	10	.08*
SBR	1	1700	30	.02	90	.05
EBL	1	1700	110	.06*	50	.03
EBT	4	6800	1360	.21	2140	.32*
EBR	0	0	70		20	
WBL	1	1700	140	.08	10	.01*
WBT	4	6800	2420	.37*	1700	.26
WBR	0	0	110		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.50**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		20	{.01}*	140	{.04}*
NBT	0.5	3400	10	.01	10	.04
NBR	1	1700	20	.01	100	.06
SBL	0	0	50		120	
SBT	1	1700	10	.04*	10	.08*
SBR	1	1700	30	.02	90	.05
EBL	1	1700	110	.06*	50	.03
EBT	4	6800	1360	.21	2150	.32*
EBR	0	0	70		20	
WBL	1	1700	140	.08	10	.01*
WBT	4	6800	2430	.37*	1700	.26
WBR	0	0	110		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.50**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		20	{.01}*	140	{.04}*
NBT	0.5	3400	10	.01	10	.04
NBR	1	1700	20	.01	100	.06
SBL	0	0	50		120	
SBT	1	1700	10	.04*	10	.08*
SBR	1	1700	30	.02	90	.05
EBL	1	1700	110	.06*	50	.03
EBT	4	6800	1360	.21	2160	.32*
EBR	0	0	70		20	
WBL	1	1700	140	.08	10	.01*
WBT	4	6800	2440	.38*	1710	.26
WBR	0	0	110		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.50**

14. Los Altos & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	70	.04
EBL	1	1700	90	.05*	50	.03
EBT	4	6800	900	.15	1600	.24*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1790	.29*	830	.13
WBR	0	0	150		50	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.43**		**.41**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	70	.04
EBL	1	1700	90	.05*	50	.03
EBT	4	6800	910	.15	1620	.24*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1810	.29*	840	.13
WBR	0	0	150		50	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.43**		**.41**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	70	.04
EBL	1	1700	90	.05*	50	.03
EBT	4	6800	910	.15	1630	.25*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1820	.29*	840	.13
WBR	0	0	150		50	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.43**		**.42**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	70	.04
EBL	1	1700	90	.05*	50	.03
EBT	4	6800	910	.15	1640	.25*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1830	.29*	850	.13
WBR	0	0	150		50	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.43**		**.42**

14. Los Altos & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	60	.04
EBL	1	1700	90	.05*	40	.02
EBT	4	6800	960	.16	1630	.25*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1860	.30*	860	.13
WBR	0	0	150		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.44** **.42**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	60	.04
EBL	1	1700	90	.05*	40	.02
EBT	4	6800	970	.16	1650	.25*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1880	.30*	870	.14
WBR	0	0	150		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.44** **.42**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	60	.04
EBL	1	1700	90	.05*	40	.02
EBT	4	6800	970	.16	1660	.25*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1890	.30*	870	.14
WBR	0	0	150		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.44** **.42**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		40	{.01}*	210	{.06}*
NBT	0.5	3400	10	.01	10	.06
NBR	1	1700	10	.01	70	.04
SBL	0	0	40		80	
SBT	1	1700	10	.03*	10	.05*
SBR	1	1700	10	.01	60	.04
EBL	1	1700	90	.05*	40	.02
EBT	4	6800	970	.16	1670	.25*
EBR	0	0	110		40	
WBL	1	1700	160	.09	20	.01*
WBT	4	6800	1900	.30*	880	.14
WBR	0	0	150		50	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.44** **.42**

15. Bellogente & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01*
NBT	1	1700	0	.01	0	.01
NBR	0	0	20		10	
SBL	1	1700	20	.01	80	.05
SBT	1	1700	0	.02*	0	.05*
SBR	0	0	30		90	
EBL	1	1700	80	.05*	40	.02
EBT	4	6800	1140	.17	2130	.32*
EBR	0	0	10		30	
WBL	1	1700	10	.01	10	.01*
WBT	4	6800	2400	.35*	1370	.20
WBR	d	1700	70	.04	30	.02
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.48**		**.44**

15. Bellogente & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01*
NBT	1	1700	0	.01	0	.01
NBR	0	0	20		10	
SBL	1	1700	20	.01	80	.05
SBT	1	1700	0	.02*	0	.05*
SBR	0	0	30		80	
EBL	1	1700	60	.04*	30	.02
EBT	4	6800	1350	.20	2270	.34*
EBR	0	0	10		30	
WBL	1	1700	10	.01	10	.01*
WBT	4	6800	2610	.38*	1700	.25
WBR	d	1700	80	.05	20	.01
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.46**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01*
NBT	1	1700	0	.01	0	.01
NBR	0	0	20		10	
SBL	1	1700	20	.01	80	.05
SBT	1	1700	0	.02*	0	.05*
SBR	0	0	30		80	
EBL	1	1700	60	.04*	30	.02
EBT	4	6800	1360	.20	2290	.34*
EBR	0	0	10		30	
WBL	1	1700	10	.01	10	.01*
WBT	4	6800	2640	.39*	1720	.25
WBR	d	1700	80	.05	20	.01
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.51**		**.46**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01*
NBT	1	1700	0	.01	0	.01
NBR	0	0	20		10	
SBL	1	1700	20	.01	80	.05
SBT	1	1700	0	.02*	0	.05*
SBR	0	0	30		80	
EBL	1	1700	60	.04*	30	.02
EBT	4	6800	1360	.20	2300	.34*
EBR	0	0	10		30	
WBL	1	1700	10	.01	10	.01*
WBT	4	6800	2650	.39*	1720	.25
WBR	d	1700	80	.05	20	.01
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.51**		**.46**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01*
NBT	1	1700	0	.01	0	.01
NBR	0	0	20		10	
SBL	1	1700	20	.01	80	.05
SBT	1	1700	0	.02*	0	.05*
SBR	0	0	30		80	
EBL	1	1700	60	.04*	30	.02
EBT	4	6800	1360	.20	2310	.34*
EBR	0	0	10		30	
WBL	1	1700	10	.01	10	.01*
WBT	4	6800	2660	.39*	1730	.25
WBR	d	1700	80	.05	20	.01
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.51**		**.46**

15. Bellogente & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	670	.10	1570	.23*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	1990	.29*	980	.14
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.41**		**.38**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	680	.10	1590	.24*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	2020	.30*	1000	.15
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.42**		**.39**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	680	.10	1600	.24*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	2030	.30*	1000	.15
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.42**		**.39**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	680	.10	1610	.24*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	2040	.30*	1010	.15
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.42**		**.39**

15. Bellogente & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	730	.11	1600	.24*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	2050	.30*	1010	.15
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.42** **.39**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	740	.11	1620	.24*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	2070	.30*	1020	.15
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.42** **.39**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	740	.11	1630	.24*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	2080	.31*	1020	.15
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.43** **.39**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01*	10	.01
NBT	1	1700	10	.01	10	.01*
NBR	0	0	10		10	
SBL	1	1700	20	.01	130	.08*
SBT	1	1700	10	.01*	10	.05
SBR	0	0	10		80	
EBL	1	1700	90	.05*	60	.04
EBT	4	6800	740	.11	1640	.24*
EBR	0	0	10		20	
WBL	1	1700	20	.01	10	.01*
WBT	4	6800	2090	.31*	1030	.15
WBR	d	1700	170	.10	60	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.43** **.39**

16. Marguerite & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	80	.02*	160	.05
NBT	2	3400	530	.16	630	.19*
NBR	1	1700	240	.14	450	.26
SBL	2	3400	180	.05	470	.14*
SBT	2	3400	770	.23*	580	.17
SBR	1	1700	400	.24	280	.16
EBL	2	3400	300	.09*	480	.14
EBT	4	6800	780	.11	1580	.23*
EBR	1	1700	100	.06	160	.09
WBL	2	3400	510	.15	400	.12*
WBT	4	6800	2000	.29*	970	.14
WBR	1	1700	310	.18	230	.14
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.73**

16. Marguerite & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	70	.02*	150	.04
NBT	2	3400	530	.16	700	.21*
NBR	1	1700	300	.18	400	.24
SBL	2	3400	210	.06	460	.14*
SBT	2	3400	740	.22*	680	.20
SBR	1	1700	340	.20	220	.13
EBL	2	3400	280	.08*	360	.11
EBT	4	6800	1040	.15	1870	.28*
EBR	1	1700	80	.05	120	.07
WBL	2	3400	530	.16	470	.14*
WBT	4	6800	2280	.34*	1360	.20
WBR	1	1700	290	.17	220	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.82**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	70	.02*	150	.04
NBT	2	3400	530	.16	700	.21*
NBR	1	1700	300	.18	400	.24
SBL	2	3400	210	.06	460	.14*
SBT	2	3400	740	.22*	680	.20
SBR	1	1700	340	.20	220	.13
EBL	2	3400	280	.08*	360	.11
EBT	4	6800	1050	.15	1900	.28*
EBR	1	1700	80	.05	120	.07
WBL	2	3400	530	.16	470	.14*
WBT	4	6800	2310	.34*	1380	.20
WBR	1	1700	290	.17	220	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.82**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	70	.02*	150	.04
NBT	2	3400	530	.16	700	.21*
NBR	1	1700	300	.18	400	.24
SBL	2	3400	210	.06	460	.14*
SBT	2	3400	740	.22*	680	.20
SBR	1	1700	340	.20	220	.13
EBL	2	3400	280	.08*	360	.11
EBT	4	6800	1050	.15	1910	.28*
EBR	1	1700	80	.05	120	.07
WBL	2	3400	530	.16	470	.14*
WBT	4	6800	2320	.34*	1380	.20
WBR	1	1700	290	.17	220	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.82**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	70	.02*	150	.04
NBT	2	3400	530	.16	700	.21*
NBR	1	1700	300	.18	400	.24
SBL	2	3400	210	.06	460	.14*
SBT	2	3400	740	.22*	680	.20
SBR	1	1700	340	.20	220	.13
EBL	2	3400	280	.08*	360	.11
EBT	4	6800	1050	.15	1920	.28*
EBR	1	1700	80	.05	120	.07
WBL	2	3400	530	.16	470	.14*
WBT	4	6800	2330	.34*	1390	.20
WBR	1	1700	290	.17	220	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.82**

16. Marguerite & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	150	.04
NBT	2	3400	460	.14	590	.17*
NBR	1	1700	250	.15	490	.29
SBL	2	3400	170	.05	540	.16*
SBT	2	3400	900	.26*	620	.18
SBR	1	1700	440	.26	230	.14
EBL	2	3400	340	.10*	550	.16
EBT	4	6800	640	.09	1340	.20*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	440	.13	390	.11*
WBT	4	6800	1760	.26*	710	.10
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.70**		**.73**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	150	.04
NBT	2	3400	460	.14	590	.17*
NBR	1	1700	250	.15	490	.29
SBL	2	3400	170	.05	540	.16*
SBT	2	3400	900	.26*	620	.18
SBR	1	1700	440	.26	230	.14
EBL	2	3400	340	.10*	550	.16
EBT	4	6800	650	.10	1370	.20*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	440	.13	390	.11*
WBT	4	6800	1790	.26*	730	.11
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.70**		**.73**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	150	.04
NBT	2	3400	460	.14	590	.17*
NBR	1	1700	250	.15	490	.29
SBL	2	3400	170	.05	540	.16*
SBT	2	3400	900	.26*	620	.18
SBR	1	1700	440	.26	230	.14
EBL	2	3400	340	.10*	550	.16
EBT	4	6800	650	.10	1380	.20*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	440	.13	390	.11*
WBT	4	6800	1800	.26*	730	.11
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.70**		**.73**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	150	.04
NBT	2	3400	460	.14	590	.17*
NBR	1	1700	250	.15	490	.29
SBL	2	3400	170	.05	540	.16*
SBT	2	3400	900	.26*	620	.18
SBR	1	1700	440	.26	230	.14
EBL	2	3400	340	.10*	550	.16
EBT	4	6800	650	.10	1390	.20*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	440	.13	390	.11*
WBT	4	6800	1810	.27*	740	.11
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.73**

16. Marguerite & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	140	.04
NBT	2	3400	480	.14	600	.18*
NBR	1	1700	220	.13	470	.28
SBL	2	3400	170	.05	510	.15*
SBT	2	3400	920	.27*	580	.17
SBR	1	1700	420	.25	200	.12
EBL	2	3400	340	.10*	500	.15
EBT	4	6800	710	.10	1420	.21*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	400	.12	410	.12*
WBT	4	6800	1840	.27*	770	.11
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	140	.04
NBT	2	3400	480	.14	600	.18*
NBR	1	1700	220	.13	470	.28
SBL	2	3400	170	.05	510	.15*
SBT	2	3400	920	.27*	580	.17
SBR	1	1700	420	.25	200	.12
EBL	2	3400	340	.10*	500	.15
EBT	4	6800	720	.11	1440	.21*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	400	.12	410	.12*
WBT	4	6800	1870	.28*	790	.12
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	140	.04
NBT	2	3400	480	.14	600	.18*
NBR	1	1700	220	.13	470	.28
SBL	2	3400	170	.05	510	.15*
SBT	2	3400	920	.27*	580	.17
SBR	1	1700	420	.25	200	.12
EBL	2	3400	340	.10*	500	.15
EBT	4	6800	720	.11	1450	.21*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	400	.12	410	.12*
WBT	4	6800	1880	.28*	790	.12
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03*	140	.04
NBT	2	3400	480	.14	600	.18*
NBR	1	1700	220	.13	470	.28
SBL	2	3400	170	.05	510	.15*
SBT	2	3400	920	.27*	580	.17
SBR	1	1700	420	.25	200	.12
EBL	2	3400	340	.10*	500	.15
EBT	4	6800	720	.11	1460	.21*
EBR	1	1700	70	.04	150	.09
WBL	2	3400	400	.12	410	.12*
WBT	4	6800	1890	.28*	800	.12
WBR	1	1700	270	.16	270	.16
Right Turn Adjustment					NBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.72**

17. Antonio & Crown Valley

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	420	.12*	310	.09*
NBT	3	5100	920	.18	680	.13
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	120	.07
SBT	3	5100	860	.17*	900	.18*
SBR	f		290		260	
EBL	2	3400	350	.10*	490	.14*
EBT	2	3400	50	.01	100	.03
EBR	1	1700	220	.13	400	.24
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment					EBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.50**

17. Antonio & Crown Valley

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	550	.16*	560	.16*
NBT	3	5100	760	.15	610	.12
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	120	.07
SBT	3	5100	700	.14*	810	.16*
SBR	f		280		310	
EBL	2	3400	320	.09*	510	.15*
EBT	2	3400	50	.01	100	.03
EBR	1	1700	500	.29	560	.33
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.08*	EBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.59**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	580	.17*	580	.17*
NBT	3	5100	770	.15	610	.12
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	120	.07
SBT	3	5100	700	.14*	820	.16*
SBR	f		280		310	
EBL	2	3400	320	.09*	510	.15*
EBT	2	3400	50	.01	100	.03
EBR	1	1700	510	.30	590	.35
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.08*	EBR	.07*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.61**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	590	.17*	590	.17*
NBT	3	5100	770	.15	610	.12
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	120	.07
SBT	3	5100	700	.14*	820	.16*
SBR	f		280		310	
EBL	2	3400	320	.09*	510	.15*
EBT	2	3400	50	.01	100	.03
EBR	1	1700	510	.30	600	.35
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.08*	EBR	.07*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.61**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	610	.18*	600	.18*
NBT	3	5100	770	.15	610	.12
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	120	.07
SBT	3	5100	700	.14*	820	.16*
SBR	f		280		310	
EBL	2	3400	320	.09*	510	.15*
EBT	2	3400	50	.01	100	.03
EBR	1	1700	520	.31	620	.36
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.08*	EBR	.07*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.62**

17. Antonio & Crown Valley

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	640	.13*	660	.13*
NBT	3	5100	960	.19	820	.16
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	810	.16*	1010	.20*
SBR	f		270		260	
EBL	2	3400	270	.08*	470	.14*
EBT	2	3400	50	.01	100	.03
EBR	2	3400	680	.20	680	.20
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.53**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	670	.13*	680	.13*
NBT	3	5100	970	.19	820	.16
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	810	.16*	1020	.20*
SBR	f		270		260	
EBL	2	3400	270	.08*	470	.14*
EBT	2	3400	50	.01	100	.03
EBR	2	3400	690	.20	710	.21
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.53**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	680	.13*	690	.14*
NBT	3	5100	970	.19	820	.16
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	810	.16*	1020	.20*
SBR	f		270		260	
EBL	2	3400	270	.08*	470	.14*
EBT	2	3400	50	.01	100	.03
EBR	2	3400	690	.20	720	.21
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.54**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	700	.14*	700	.14*
NBT	3	5100	970	.19	820	.16
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	810	.16*	1020	.20*
SBR	f		270		260	
EBL	2	3400	270	.08*	470	.14*
EBT	2	3400	50	.01	100	.03
EBR	2	3400	700	.21	740	.22
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.46**		**.54**

17. Antonio & Crown Valley

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	710	.14*	750	.15*
NBT	3	5100	1020	.20	890	.17
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	1050	.21*	990	.19*
SBR	f		190		220	
EBL	2	3400	180	.05*	390	.11*
EBT	2	3400	50	.01	110	.03
EBR	2	3400	850	.25	740	.22
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.09*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.55** **.51**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	740	.15*	770	.15*
NBT	3	5100	1030	.20	890	.17
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	1050	.21*	1000	.20*
SBR	f		190		220	
EBL	2	3400	180	.05*	390	.11*
EBT	2	3400	50	.01	110	.03
EBR	2	3400	860	.25	770	.23
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.09*	EBR	.01*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.56** **.53**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	750	.15*	770	.15*
NBT	3	5100	1030	.20	890	.17
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	1050	.21*	1000	.20*
SBR	f		190		220	
EBL	2	3400	180	.05*	390	.11*
EBT	2	3400	50	.01	110	.03
EBR	2	3400	860	.25	780	.23
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.09*	EBR	.01*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.56** **.53**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	3	5100	770	.15*	780	.15*
NBT	3	5100	1030	.20	890	.17
NBR	1	1700	10	.01	10	.01
SBL	1	1700	40	.02	110	.06
SBT	3	5100	1050	.21*	1000	.20*
SBR	f		190		220	
EBL	2	3400	180	.05*	390	.11*
EBT	2	3400	50	.01	110	.03
EBR	2	3400	870	.26	800	.24
WBL	2	3400	20	.01	30	.01
WBT	3	5100	40	.01*	60	.01*
WBR	1	1700	20	.01	50	.03
Right Turn Adjustment			EBR	.10*	EBR	.02*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.57** **.54**

18. Cm Capistrano & Ortega

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	360	.21*	460	.27*
NBR	1	1700	100	.06	120	.07
SBL	1	1700	170	.10*	130	.08*
SBT	1	1700	470	.28	490	.29
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	140	.08*	140	.08*
WBT	0	0	0		0	
WBR	1	1700	190	.11	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.44** **.48**

18. Cm Capistrano & Ortega

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	360	.21	450	.26*
NBR	1	1700	120	.07	140	.08
SBL	1	1700	130	.08	140	.08*
SBT	1	1700	540	.32*	510	.30
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	180	.11*	130	.08*
WBT	0	0	0		0	
WBR	1	1700	190	.11	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .48 .47

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	360	.21	450	.26*
NBR	1	1700	120	.07	140	.08
SBL	1	1700	130	.08	140	.08*
SBT	1	1700	540	.32*	510	.30
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	180	.11*	130	.08*
WBT	0	0	0		0	
WBR	1	1700	190	.11	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .48 .47

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	360	.21	450	.26*
NBR	1	1700	120	.07	140	.08
SBL	1	1700	130	.08	140	.08*
SBT	1	1700	540	.32*	510	.30
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	180	.11*	130	.08*
WBT	0	0	0		0	
WBR	1	1700	190	.11	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .48 .47

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	360	.21	450	.26*
NBR	1	1700	120	.07	140	.08
SBL	1	1700	130	.08	140	.08*
SBT	1	1700	540	.32*	510	.30
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	180	.11*	130	.08*
WBT	0	0	0		0	
WBR	1	1700	190	.11	200	.12
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .48 .47

18. Cm Capistrano & Ortega

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	560	.33*	540	.32*
NBR	1	1700	30	.02	100	.06
SBL	1	1700	460	.27*	380	.22*
SBT	1	1700	670	.39	610	.36
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	120	.07*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	530	.31	490	.29
Right Turn Adjustment			WBR	.04*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.76** **.71**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	560	.33*	540	.32*
NBR	1	1700	30	.02	100	.06
SBL	1	1700	460	.27*	380	.22*
SBT	1	1700	670	.39	610	.36
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	120	.07*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	530	.31	490	.29
Right Turn Adjustment			WBR	.04*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.76** **.71**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	560	.33*	540	.32*
NBR	1	1700	30	.02	100	.06
SBL	1	1700	460	.27*	380	.22*
SBT	1	1700	670	.39	610	.36
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	120	.07*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	530	.31	490	.29
Right Turn Adjustment			WBR	.04*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.76** **.71**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	560	.33*	540	.32*
NBR	1	1700	30	.02	100	.06
SBL	1	1700	460	.27*	380	.22*
SBT	1	1700	670	.39	610	.36
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	120	.07*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	530	.31	490	.29
Right Turn Adjustment			WBR	.04*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.76** **.71**

18. Cm Capistrano & Ortega

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	490	.29*	480	.28*
NBR	1	1700	40	.02	90	.05
SBL	1	1700	450	.26*	370	.22*
SBT	1	1700	600	.35	560	.33
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	130	.08*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	520	.31	490	.29
Right Turn Adjustment			WBR	.03*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.71** **.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	490	.29*	480	.28*
NBR	1	1700	40	.02	90	.05
SBL	1	1700	450	.26*	370	.22*
SBT	1	1700	600	.35	560	.33
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	130	.08*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	520	.31	490	.29
Right Turn Adjustment			WBR	.03*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.71** **.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	490	.29*	480	.28*
NBR	1	1700	40	.02	90	.05
SBL	1	1700	450	.26*	370	.22*
SBT	1	1700	600	.35	560	.33
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	130	.08*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	520	.31	490	.29
Right Turn Adjustment			WBR	.03*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.71** **.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	490	.29*	480	.28*
NBR	1	1700	40	.02	90	.05
SBL	1	1700	450	.26*	370	.22*
SBT	1	1700	600	.35	560	.33
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	130	.08*	160	.09*
WBT	0	0	0		0	
WBR	1	1700	520	.31	490	.29
Right Turn Adjustment			WBR	.03*	WBR	.03*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.71** **.67**

19. Del Obispo & Ortega

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02*	50	.03*
NBT	0	0	0		0	
NBR	2	3400	880	.26	800	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	380	.08*	530	.11*
EBR	0	0	40		40	
WBL	2	3400	830	.24*	990	.29*
WBT	1	1700	530	.31	430	.25
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.06*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.48**

19. Del Obispo & Ortega

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02*	50	.03*
NBT	3	5100	980	.19	910	.18
NBR	0	0	10		20	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	800	.24*	1120	.33*
SBR	1	1700	620	.36	470	.28
EBL	2	3400	380	.11*	620	.18*
EBT	1	1700	10	.03	10	.03
EBR	0	0	40		40	
WBL	1	1700	10	.01	20	.01
WBT	1	1700	10	.01*	10	.02*
WBR	0	0	10		20	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.61**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02*	50	.03*
NBT	3	5100	980	.19	920	.18
NBR	0	0	10		20	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	810	.24*	1120	.33*
SBR	1	1700	620	.36	470	.28
EBL	2	3400	380	.11*	620	.18*
EBT	1	1700	10	.03	10	.03
EBR	0	0	40		40	
WBL	1	1700	10	.01	20	.01
WBT	1	1700	10	.01*	10	.02*
WBR	0	0	10		20	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.61**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02*	50	.03*
NBT	3	5100	980	.19	920	.18
NBR	0	0	10		20	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	810	.24*	1120	.33*
SBR	1	1700	620	.36	470	.28
EBL	2	3400	380	.11*	620	.18*
EBT	1	1700	10	.03	10	.03
EBR	0	0	40		40	
WBL	1	1700	10	.01	20	.01
WBT	1	1700	10	.01*	10	.02*
WBR	0	0	10		20	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.61**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02*	50	.03*
NBT	3	5100	980	.19	920	.18
NBR	0	0	10		20	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	810	.24*	1120	.33*
SBR	1	1700	620	.36	470	.28
EBL	2	3400	380	.11*	620	.18*
EBT	1	1700	10	.03	10	.03
EBR	0	0	40		40	
WBL	1	1700	10	.01	20	.01
WBT	1	1700	10	.01*	10	.02*
WBR	0	0	10		20	
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.61**

19. Del Obispo & Ortega

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1130	.22	1270	.25
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1270	.37*	1000	.29*
SBR	1	1700	610	.36	820	.48
EBL	2	3400	540	.16*	660	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.05*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.68**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1130	.22	1280	.25
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1280	.38*	1000	.29*
SBR	1	1700	610	.36	820	.48
EBL	2	3400	540	.16*	660	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.05*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.68**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1130	.22	1280	.25
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1280	.38*	1000	.29*
SBR	1	1700	610	.36	820	.48
EBL	2	3400	540	.16*	660	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.05*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.68**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1130	.22	1280	.25
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1280	.38*	1000	.29*
SBR	1	1700	610	.36	820	.48
EBL	2	3400	540	.16*	660	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.05*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.68**

19. Del Obispo & Ortega

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1170	.23	1190	.24
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1240	.36*	960	.28*
SBR	1	1700	620	.36	820	.48
EBL	2	3400	540	.16*	640	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1170	.23	1200	.24
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1250	.37*	960	.28*
SBR	1	1700	620	.36	820	.48
EBL	2	3400	540	.16*	640	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1170	.23	1200	.24
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1250	.37*	960	.28*
SBR	1	1700	620	.36	820	.48
EBL	2	3400	540	.16*	640	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	260	.15*	160	.09*
NBT	3	5100	1170	.23	1200	.24
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1250	.37*	960	.28*
SBR	1	1700	620	.36	820	.48
EBL	2	3400	540	.16*	640	.19*
EBT	1	1700	10	.05	10	.09
EBR	0	0	80		150	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment					SBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.68**

20. I-5 SB Ramps & Ortega

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		710	.21*	870	.26*
SBT	0	5100	0		0	
SBR	1.5		650	{.11}	640	{.12}
EBL	0	0	0		0	
EBT	2	3400	1130	.33*	1180	.35*
EBR	1	1700	140	.08	170	.10
WBL	1	1700	400	.24*	370	.22*
WBT	2	3400	720	.21	790	.23
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.83**		**.88**

20. I-5 SB Ramps & Ortega

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	920	.27*	1020	.30*
SBT	0	0	0		0	
SBR	2	3400	560	.16	660	.19
EBL	0	0	0		0	
EBT	3	5100	1230	.24*	1400	.27*
EBR	1	1700	150	.09	150	.09
WBL	2	3400	170	.05*	70	.02*
WBT	2	3400	870	.26	940	.28
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.64**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	920	.27*	1030	.30*
SBT	0	0	0		0	
SBR	2	3400	560	.16	660	.19
EBL	0	0	0		0	
EBT	3	5100	1230	.24*	1410	.28*
EBR	1	1700	150	.09	150	.09
WBL	2	3400	170	.05*	70	.02*
WBT	2	3400	880	.26	950	.28
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.65**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	920	.27*	1030	.30*
SBT	0	0	0		0	
SBR	2	3400	560	.16	660	.19
EBL	0	0	0		0	
EBT	3	5100	1230	.24*	1410	.28*
EBR	1	1700	150	.09	150	.09
WBL	2	3400	170	.05*	70	.02*
WBT	2	3400	880	.26	950	.28
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.65**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	920	.27*	1040	.31*
SBT	0	0	0		0	
SBR	2	3400	560	.16	660	.19
EBL	0	0	0		0	
EBT	3	5100	1230	.24*	1410	.28*
EBR	1	1700	150	.09	150	.09
WBL	2	3400	170	.05*	70	.02*
WBT	2	3400	880	.26	950	.28
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.66**

20. I-5 SB Ramps & Ortega

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	790	.23*	990	.29*
SBT	0	0	0		0	
SBR	2	3400	980	.29	1020	.30
EBL	0	0	0		0	
EBT	3	5100	1200	.24*	1440	.28*
EBR	1	1700	460	.27	480	.28
WBL	2	3400	540	.16*	610	.18*
WBT	2	3400	920	.27	800	.24
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.80**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	790	.23*	1000	.29*
SBT	0	0	0		0	
SBR	2	3400	980	.29	1020	.30
EBL	0	0	0		0	
EBT	3	5100	1200	.24*	1450	.28*
EBR	1	1700	460	.27	480	.28
WBL	2	3400	540	.16*	610	.18*
WBT	2	3400	930	.27	810	.24
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.80**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	790	.23*	1000	.29*
SBT	0	0	0		0	
SBR	2	3400	980	.29	1020	.30
EBL	0	0	0		0	
EBT	3	5100	1200	.24*	1450	.28*
EBR	1	1700	460	.27	480	.28
WBL	2	3400	540	.16*	610	.18*
WBT	2	3400	930	.27	810	.24
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.80**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	790	.23*	1010	.30*
SBT	0	0	0		0	
SBR	2	3400	980	.29	1020	.30
EBL	0	0	0		0	
EBT	3	5100	1200	.24*	1450	.28*
EBR	1	1700	460	.27	480	.28
WBL	2	3400	540	.16*	610	.18*
WBT	2	3400	930	.27	810	.24
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.81**

20. I-5 SB Ramps & Ortega

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	960	.28*	1210	.36*
SBT	0	0	0		0	
SBR	2	3400	1010	.30	1010	.30
EBL	0	0	0		0	
EBT	3	5100	1240	.24*	1370	.27*
EBR	1	1700	460	.27	450	.26
WBL	2	3400	530	.16*	580	.17*
WBT	2	3400	860	.25	770	.23
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.85**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	960	.28*	1220	.36*
SBT	0	0	0		0	
SBR	2	3400	1010	.30	1010	.30
EBL	0	0	0		0	
EBT	3	5100	1240	.24*	1380	.27*
EBR	1	1700	460	.27	450	.26
WBL	2	3400	530	.16*	580	.17*
WBT	2	3400	870	.26	780	.23
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.85**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	960	.28*	1220	.36*
SBT	0	0	0		0	
SBR	2	3400	1010	.30	1010	.30
EBL	0	0	0		0	
EBT	3	5100	1240	.24*	1380	.27*
EBR	1	1700	460	.27	450	.26
WBL	2	3400	530	.16*	580	.17*
WBT	2	3400	870	.26	780	.23
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.85**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	960	.28*	1230	.36*
SBT	0	0	0		0	
SBR	2	3400	1010	.30	1010	.30
EBL	0	0	0		0	
EBT	3	5100	1240	.24*	1380	.27*
EBR	1	1700	460	.27	450	.26
WBL	2	3400	530	.16*	580	.17*
WBT	2	3400	870	.26	780	.23
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.85**

21. I-5 NB Ramps & Ortega

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	210	.12*	170	.10*
NBT	0	0	0		0	
NBR	1	1700	680	.40	480	.28
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	690	.41*	680	.40*
EBT	2	3400	1150	.34	1370	.40
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	910	.27*	990	.29*
WBR	1	1700	890	.52	730	.43
Right Turn Adjustment			Multi	.18*	WBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**1.03**		**.90**

21. I-5 NB Ramps & Ortega

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		270	{.16}*	230	
NBT	0.5	3400	10	{.16}	10	.15*
NBR	1.5		350	{.12}	270	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1470	{.29}	1600	{.32}
EBR	1.5		680	{.26}	800	
WBL	0	0	0		0	
WBT	3	5100	2170	.43*	1770	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.56**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		270	{.16}*	230	
NBT	0.5	3400	10	{.16}	10	.15*
NBR	1.5		350	{.12}	270	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1480	{.29}	1620	{.33}
EBR	1.5		680	{.26}	800	
WBL	0	0	0		0	
WBT	3	5100	2190	.43*	1780	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.56**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		270	{.16}*	230	
NBT	0.5	3400	10	{.16}	10	.15*
NBR	1.5		350	{.12}	270	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1480	{.29}	1620	{.33}
EBR	1.5		680	{.26}	800	
WBL	0	0	0		0	
WBT	3	5100	2190	.43*	1780	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.56**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		270	{.16}*	230	
NBT	0.5	3400	10	{.16}	10	.15*
NBR	1.5		350	{.12}	270	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1480	{.29}	1630	{.33}
EBR	1.5		680	{.26}	800	
WBL	0	0	0		0	
WBT	3	5100	2200	.43*	1790	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.56**

21. I-5 NB Ramps & Ortega

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		260		210	
NBT	0.5	3400	10	{.30}*	10	.26*
NBR	1.5		850		670	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1300	{.25}	1740	{.34}
EBR	1.5		700	{.16}	690	{.21}
WBL	0	0	0		0	
WBT	3	5100	1860	.37*	1780	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		260		210	
NBT	0.5	3400	10	{.30}*	10	.26*
NBR	1.5		850		670	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1310	{.26}	1760	{.35}
EBR	1.5		700	{.16}	690	{.21}
WBL	0	0	0		0	
WBT	3	5100	1880	.37*	1790	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		260		210	
NBT	0.5	3400	10	{.30}*	10	.26*
NBR	1.5		850		670	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1310	{.26}	1760	{.35}
EBR	1.5		700	{.16}	690	{.21}
WBL	0	0	0		0	
WBT	3	5100	1880	.37*	1790	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		260		210	
NBT	0.5	3400	10	{.30}*	10	.26*
NBR	1.5		850		670	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1310	{.26}	1770	{.35}
EBR	1.5		700	{.16}	690	{.21}
WBL	0	0	0		0	
WBT	3	5100	1890	.37*	1800	.35*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.73** **.67**

21. I-5 NB Ramps & Ortega

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		280		220	
NBT	0.5	3400	10	{.28}*	10	.26*
NBR	1.5		750		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1420	{.28}	1840	{.36}
EBR	1.5		780	{.23}	750	{.25}
WBL	0	0	0		0	
WBT	3	5100	1910	.38*	1880	.37*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.69**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		280		220	
NBT	0.5	3400	10	{.28}*	10	.26*
NBR	1.5		750		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1430	{.28}	1860	{.36}
EBR	1.5		780	{.23}	750	{.25}
WBL	0	0	0		0	
WBT	3	5100	1930	.38*	1890	.37*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.69**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		280		220	
NBT	0.5	3400	10	{.28}*	10	.26*
NBR	1.5		750		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1430	{.28}	1860	{.36}
EBR	1.5		780	{.23}	750	{.25}
WBL	0	0	0		0	
WBT	3	5100	1930	.38*	1890	.37*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.69**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0		280		220	
NBT	0.5	3400	10	{.28}*	10	.26*
NBR	1.5		750		650	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	10	.01	10	.01
EBL	1	1700	10	.01*	10	.01*
EBT	2.5	6800	1430	{.28}	1870	{.37}
EBR	1.5		780	{.23}	750	{.25}
WBL	0	0	0		0	
WBT	3	5100	1940	.38*	1900	.37*
WBR	0	0	10		10	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.69**

22. Rancho Viejo & Ortega

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	290	.09	440	.13*
NBT	1	1700	150	.11*	100	.08
NBR	0	0	30		30	
SBL	1.5		150		110	
SBT	1.5	5100	130	.08*	90	.06*
SBR	0		110		150	.09
EBL	1	1700	170	.10	180	.11
EBT	2	3400	1150	.34*	1310	.39*
EBR	1	1700	490	.29	420	.25
WBL	1	1700	60	.04*	40	.02*
WBT	3	5100	1370	.27	1080	.21
WBR	1	1700	340	.20	120	.07
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.62** **.65**

22. Rancho Viejo & Ortega

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	430	.13*
NBT	1	1700	150	.11*	90	.08
NBR	0	0	40		50	
SBL	1.5		170		160	
SBT	1.5	5100	150	.08*	120	.08*
SBR	0		100		140	
EBL	1	1700	140	.08*	160	.09
EBT	2	3400	1230	.36	1390	.41*
EBR	1	1700	440	.26	390	.23
WBL	1	1700	70	.04	60	.04*
WBT	3	5100	1780	.35*	1170	.23
WBR	1	1700	240	.14	140	.08
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .67 .71

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	430	.13*
NBT	1	1700	150	.11*	90	.08
NBR	0	0	40		50	
SBL	1.5		170		160	
SBT	1.5	5100	150	.08*	120	.08*
SBR	0		100		140	
EBL	1	1700	140	.08*	160	.09
EBT	2	3400	1240	.36	1410	.41*
EBR	1	1700	440	.26	390	.23
WBL	1	1700	70	.04	60	.04*
WBT	3	5100	1800	.35*	1180	.23
WBR	1	1700	240	.14	140	.08
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .67 .71

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	430	.13*
NBT	1	1700	150	.11*	90	.08
NBR	0	0	40		50	
SBL	1.5		170		160	
SBT	1.5	5100	150	.08*	120	.08*
SBR	0		100		140	
EBL	1	1700	140	.08*	160	.09
EBT	2	3400	1240	.36	1410	.41*
EBR	1	1700	440	.26	390	.23
WBL	1	1700	70	.04	60	.04*
WBT	3	5100	1800	.35*	1180	.23
WBR	1	1700	240	.14	140	.08
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .67 .71

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	430	.13*
NBT	1	1700	150	.11*	90	.08
NBR	0	0	40		50	
SBL	1.5		170		160	
SBT	1.5	5100	150	.08*	120	.08*
SBR	0		100		140	
EBL	1	1700	140	.08*	160	.09
EBT	2	3400	1240	.36	1420	.42*
EBR	1	1700	440	.26	390	.23
WBL	1	1700	70	.04	60	.04*
WBT	3	5100	1810	.35*	1190	.23
WBR	1	1700	240	.14	140	.08
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .67 .72

22. Rancho Viejo & Ortega

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	440	.13*
NBT	1	1700	160	.09*	150	.09
NBR	1	1700	40	.02	50	.03
SBL	1.5		210	.12	380	
SBT	0.5	3400	220	.13*	150	.16*
SBR	1	1700	120	.07	250	.15
EBL	1	1700	340	.20*	240	.14
EBT	2	3400	1180	.35	1270	.37*
EBR	1	1700	440	.26	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1660	.33*	1040	.20
WBR	1	1700	460	.27	270	.16
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.80** **.75**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	440	.13*
NBT	1	1700	160	.09*	150	.09
NBR	1	1700	40	.02	50	.03
SBL	1.5		210	.12	380	
SBT	0.5	3400	220	.13*	150	.16*
SBR	1	1700	120	.07	250	.15
EBL	1	1700	340	.20*	240	.14
EBT	2	3400	1190	.35	1290	.38*
EBR	1	1700	440	.26	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1680	.33*	1050	.21
WBR	1	1700	460	.27	270	.16
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.80** **.76**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	440	.13*
NBT	1	1700	160	.09*	150	.09
NBR	1	1700	40	.02	50	.03
SBL	1.5		210	.12	380	
SBT	0.5	3400	220	.13*	150	.16*
SBR	1	1700	120	.07	250	.15
EBL	1	1700	340	.20*	240	.14
EBT	2	3400	1190	.35	1290	.38*
EBR	1	1700	440	.26	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1680	.33*	1050	.21
WBR	1	1700	460	.27	270	.16
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.80** **.76**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	440	.13*
NBT	1	1700	160	.09*	150	.09
NBR	1	1700	40	.02	50	.03
SBL	1.5		210	.12	380	
SBT	0.5	3400	220	.13*	150	.16*
SBR	1	1700	120	.07	250	.15
EBL	1	1700	340	.20*	240	.14
EBT	2	3400	1190	.35	1300	.38*
EBR	1	1700	440	.26	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1690	.33*	1060	.21
WBR	1	1700	460	.27	270	.16
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.80** **.76**

22. Rancho Viejo & Ortega

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	460	.14*
NBT	1	1700	160	.09*	130	.08
NBR	1	1700	40	.02	50	.03
SBL	1.5		220		380	
SBT	0.5	3400	190	.12*	150	.16*
SBR	1	1700	120	.07	160	.09
EBL	1	1700	270	.16*	200	.12
EBT	2	3400	1240	.36	1380	.41*
EBR	1	1700	470	.28	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1720	.34*	1210	.24
WBR	1	1700	440	.26	250	.15
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.76** **.80**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	460	.14*
NBT	1	1700	160	.09*	130	.08
NBR	1	1700	40	.02	50	.03
SBL	1.5		220		380	
SBT	0.5	3400	190	.12*	150	.16*
SBR	1	1700	120	.07	160	.09
EBL	1	1700	270	.16*	200	.12
EBT	2	3400	1250	.37	1400	.41*
EBR	1	1700	470	.28	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1740	.34*	1220	.24
WBR	1	1700	440	.26	250	.15
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.76** **.80**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	460	.14*
NBT	1	1700	160	.09*	130	.08
NBR	1	1700	40	.02	50	.03
SBL	1.5		220		380	
SBT	0.5	3400	190	.12*	150	.16*
SBR	1	1700	120	.07	160	.09
EBL	1	1700	270	.16*	200	.12
EBT	2	3400	1250	.37	1400	.41*
EBR	1	1700	470	.28	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1740	.34*	1220	.24
WBR	1	1700	440	.26	250	.15
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.76** **.80**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	280	.08	460	.14*
NBT	1	1700	160	.09*	130	.08
NBR	1	1700	40	.02	50	.03
SBL	1.5		220		380	
SBT	0.5	3400	190	.12*	150	.16*
SBR	1	1700	120	.07	160	.09
EBL	1	1700	270	.16*	200	.12
EBT	2	3400	1250	.37	1410	.41*
EBR	1	1700	470	.28	380	.22
WBL	1	1700	80	.05	70	.04*
WBT	3	5100	1750	.34*	1230	.24
WBR	1	1700	440	.26	250	.15
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.76** **.80**

23. La Novia & Ortega

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	310	.09*	230	.07*
NBT	0	0	0		0	
NBR	1	1700	190	.11	150	.09
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	940	.28	1310	.39*
EBR	1	1700	270	.16	240	.14
WBL	1	1700	190	.11	160	.09*
WBT	2	3400	1500	.44*	1030	.30
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.60**

23. La Novia & Ortega

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	300	.09*	230	.07*
NBT	0	0	0		0	
NBR	1	1700	150	.09	120	.07
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1050	.31	1470	.43*
EBR	1	1700	260	.15	230	.14
WBL	1	1700	150	.09	180	.11*
WBT	2	3400	1830	.54*	1180	.35
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.66**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	300	.09*	230	.07*
NBT	0	0	0		0	
NBR	1	1700	150	.09	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1060	.31	1490	.44*
EBR	1	1700	260	.15	230	.14
WBL	1	1700	160	.09	180	.11*
WBT	2	3400	1850	.54*	1190	.35
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.67**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	300	.09*	230	.07*
NBT	0	0	0		0	
NBR	1	1700	150	.09	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1060	.31	1500	.44*
EBR	1	1700	260	.15	230	.14
WBL	1	1700	160	.09	180	.11*
WBT	2	3400	1860	.55*	1190	.35
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.67**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	300	.09*	230	.07*
NBT	0	0	0		0	
NBR	1	1700	150	.09	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1060	.31	1510	.44*
EBR	1	1700	260	.15	230	.14
WBL	1	1700	160	.09	180	.11*
WBT	2	3400	1870	.55*	1200	.35
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.67**

23. La Novia & Ortega

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	260	.08*
NBT	0	0	0		0	
NBR	1	1700	210	.12	200	.12
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1040	.31	1510	.44*
EBR	1	1700	280	.16	300	.18
WBL	2	3400	250	.07	240	.07*
WBT	2	3400	1910	.56*	1160	.34
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.64**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	260	.08*
NBT	0	0	0		0	
NBR	1	1700	210	.12	210	.12
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1050	.31	1530	.45*
EBR	1	1700	280	.16	300	.18
WBL	2	3400	260	.08	240	.07*
WBT	2	3400	1930	.57*	1170	.34
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	260	.08*
NBT	0	0	0		0	
NBR	1	1700	210	.12	210	.12
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1050	.31	1540	.45*
EBR	1	1700	280	.16	300	.18
WBL	2	3400	260	.08	240	.07*
WBT	2	3400	1940	.57*	1170	.34
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	260	.08*
NBT	0	0	0		0	
NBR	1	1700	210	.12	210	.12
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1050	.31	1550	.46*
EBR	1	1700	280	.16	300	.18
WBL	2	3400	260	.08	240	.07*
WBT	2	3400	1950	.57*	1180	.35
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.66**

23. La Novia & Ortega

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	250	.07*
NBT	0	0	0		0	
NBR	1	1700	200	.12	150	.09
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1100	.32	1650	.49*
EBR	1	1700	280	.16	290	.17
WBL	2	3400	220	.06	200	.06*
WBT	2	3400	1950	.57*	1320	.39
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	250	.07*
NBT	0	0	0		0	
NBR	1	1700	200	.12	160	.09
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1110	.33	1670	.49*
EBR	1	1700	280	.16	290	.17
WBL	2	3400	230	.07	200	.06*
WBT	2	3400	1970	.58*	1330	.39
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	250	.07*
NBT	0	0	0		0	
NBR	1	1700	200	.12	160	.09
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1110	.33	1680	.49*
EBR	1	1700	280	.16	290	.17
WBL	2	3400	230	.07	200	.06*
WBT	2	3400	1980	.58*	1330	.39
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	340	.10*	250	.07*
NBT	0	0	0		0	
NBR	1	1700	200	.12	160	.09
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1110	.33	1690	.50*
EBR	1	1700	280	.16	290	.17
WBL	2	3400	230	.07	200	.06*
WBT	2	3400	1990	.59*	1340	.39
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.68**

24. Antonio/La Pata & Ortega

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	370	.11*	180	.05
NBT	3	5100	290	.06	110	.02*
NBR	1	1700	10	.01	20	.01
SBL	1	1700	90	.05	300	.18*
SBT	3	5100	440	.09*	90	.02
SBR	2	3400	400	.12	470	.14
EBL	2	3400	330	.10*	460	.14
EBT	2	3400	200	.06	820	.24*
EBR	1	1700	530	.31	70	.04
WBL	1	1700	20	.01	10	.01*
WBT	2	3400	710	.21*	280	.08
WBR	1	1700	280	.16	100	.06
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.56** **.50**

24. Antonio/La Pata & Ortega

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	630	.19*	430	.13*
NBT	3	5100	1020	.20	850	.17
NBR	1	1700	140	.08	230	.14
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1290	.25*	960	.19*
SBR	2	3400	770	.23	630	.19
EBL	2	3400	410	.12*	650	.19
EBT	2	3400	140	.04	570	.17*
EBR	1	1700	670	.39	270	.16
WBL	1	1700	250	.15	140	.08*
WBT	2	3400	390	.11*	170	.05
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.12*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.84** **.62**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	630	.19*	430	.13*
NBT	3	5100	1020	.20	860	.17
NBR	1	1700	140	.08	230	.14
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1300	.25*	970	.19*
SBR	2	3400	800	.24	650	.19
EBL	2	3400	420	.12*	680	.20*
EBT	2	3400	140	.04	570	.17
EBR	1	1700	670	.39	270	.16
WBL	1	1700	250	.15	140	.08
WBT	2	3400	390	.11*	170	.05*
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.12*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.84** **.62**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	630	.19*	430	.13*
NBT	3	5100	1020	.20	860	.17
NBR	1	1700	140	.08	230	.14
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1300	.25*	970	.19*
SBR	2	3400	810	.24	650	.19
EBL	2	3400	420	.12*	690	.20*
EBT	2	3400	140	.04	570	.17
EBR	1	1700	670	.39	270	.16
WBL	1	1700	250	.15	140	.08
WBT	2	3400	390	.11*	170	.05*
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.12*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.84** **.62**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	630	.19*	430	.13*
NBT	3	5100	1020	.20	860	.17
NBR	1	1700	140	.08	230	.14
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1300	.25*	970	.19*
SBR	2	3400	820	.24	660	.19
EBL	2	3400	430	.13*	700	.21*
EBT	2	3400	140	.04	570	.17
EBR	1	1700	670	.39	270	.16
WBL	1	1700	250	.15	140	.08
WBT	2	3400	390	.11*	170	.05*
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.11*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.84** **.63**

24. Antonio/La Pata & Ortega

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	570	.17*	400	.12*
NBT	3	5100	1380	.27	1100	.22
NBR	1	1700	220	.13	350	.21
SBL	1	1700	10	.01	40	.02
SBT	3	5100	1470	.29*	1340	.26*
SBR	2	3400	880	.26	680	.20
EBL	2	3400	450	.13*	750	.22
EBT	2	3400	150	.04	640	.19*
EBR	1	1700	600	.35	240	.14
WBL	1	1700	330	.19	220	.13*
WBT	2	3400	420	.12*	210	.06
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.12*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.88** **.75**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	570	.17*	400	.12*
NBT	3	5100	1380	.27	1110	.22
NBR	1	1700	220	.13	350	.21
SBL	1	1700	10	.01	40	.02
SBT	3	5100	1480	.29*	1350	.26*
SBR	2	3400	910	.27	700	.21
EBL	2	3400	460	.14*	780	.23
EBT	2	3400	150	.04	640	.19*
EBR	1	1700	600	.35	240	.14
WBL	1	1700	330	.19	220	.13*
WBT	2	3400	420	.12*	210	.06
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.11*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.88** **.75**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	570	.17*	400	.12*
NBT	3	5100	1380	.27	1110	.22
NBR	1	1700	220	.13	350	.21
SBL	1	1700	10	.01	40	.02
SBT	3	5100	1480	.29*	1350	.26*
SBR	2	3400	920	.27	700	.21
EBL	2	3400	460	.14*	790	.23
EBT	2	3400	150	.04	640	.19*
EBR	1	1700	600	.35	240	.14
WBL	1	1700	330	.19	220	.13*
WBT	2	3400	420	.12*	210	.06
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.11*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.88** **.75**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	570	.17*	400	.12*
NBT	3	5100	1380	.27	1110	.22
NBR	1	1700	220	.13	350	.21
SBL	1	1700	10	.01	40	.02
SBT	3	5100	1480	.29*	1350	.26*
SBR	2	3400	930	.27	710	.21
EBL	2	3400	470	.14*	800	.24
EBT	2	3400	150	.04	640	.19*
EBR	1	1700	600	.35	240	.14
WBL	1	1700	330	.19	220	.13*
WBT	2	3400	420	.12*	210	.06
WBR	1	1700	20	.01	10	.01
Right Turn Adjustment			EBR	.11*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.88** **.75**

24. Antonio/La Pata & Ortega

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	720	.21*	480	.14*
NBT	3	5100	760	.15	660	.13
NBR	1	1700	170	.10	260	.15
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1020	.20*	730	.14*
SBR	2	3400	790	.23	660	.19
EBL	2	3400	400	.12*	650	.19
EBT	2	3400	160	.05	620	.18*
EBR	1	1700	770	.45	390	.23
WBL	1	1700	260	.15	140	.08*
WBT	2	3400	420	.12*	220	.06
WBR	1	1700	10	.01	10	.01
Right Turn Adjustment			EBR	.15*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.85** **.59**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	720	.21*	480	.14*
NBT	3	5100	760	.15	670	.13
NBR	1	1700	170	.10	260	.15
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1030	.20*	740	.15*
SBR	2	3400	820	.24	680	.20
EBL	2	3400	410	.12*	680	.20
EBT	2	3400	160	.05	620	.18*
EBR	1	1700	770	.45	390	.23
WBL	1	1700	260	.15	140	.08*
WBT	2	3400	420	.12*	220	.06
WBR	1	1700	10	.01	10	.01
Right Turn Adjustment			EBR	.15*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.85** **.60**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	720	.21*	480	.14*
NBT	3	5100	760	.15	670	.13
NBR	1	1700	170	.10	260	.15
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1030	.20*	740	.15*
SBR	2	3400	830	.24	680	.20
EBL	2	3400	410	.12*	690	.20
EBT	2	3400	160	.05	620	.18*
EBR	1	1700	770	.45	390	.23
WBL	1	1700	260	.15	140	.08*
WBT	2	3400	420	.12*	220	.06
WBR	1	1700	10	.01	10	.01
Right Turn Adjustment			EBR	.15*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.85** **.60**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	720	.21*	480	.14*
NBT	3	5100	760	.15	670	.13
NBR	1	1700	170	.10	260	.15
SBL	1	1700	10	.01	10	.01
SBT	3	5100	1030	.20*	740	.15*
SBR	2	3400	840	.25	690	.20
EBL	2	3400	420	.12*	700	.21*
EBT	2	3400	160	.05	620	.18
EBR	1	1700	770	.45	390	.23
WBL	1	1700	260	.15	140	.08
WBT	2	3400	420	.12*	220	.06*
WBR	1	1700	10	.01	10	.01
Right Turn Adjustment			EBR	.15*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR NBR EBR

TOTAL CAPACITY UTILIZATION **.85** **.61**

25. Cm Capistrano & Del Obispo

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	330	.10*	370	.11*
NBT	1	1700	220	.13	230	.14
NBR	1	1700	60	.04	120	.07
SBL	1	1700	40	.02	80	.05
SBT	1	1700	190	.11*	190	.11*
SBR	1	1700	350	.21	380	.22
EBL	1	1700	350	.21*	250	.15*
EBT	2	3400	730	.21	610	.18
EBR	1	1700	270	.16	250	.15
WBL	2	3400	100	.03	160	.05
WBT	2	3400	620	.19*	710	.22*
WBR	0	0	10		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.64**

25. Cm Capistrano & Del Obispo

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	310	.09*	360	.11*
NBT	1	1700	210	.12	210	.12
NBR	1	1700	50	.03	150	.09
SBL	1	1700	40	.02	80	.05
SBT	1	1700	200	.12*	150	.09*
SBR	1	1700	430	.25	400	.24
EBL	1	1700	360	.21*	250	.15*
EBT	2	3400	800	.24	630	.19
EBR	1	1700	270	.16	250	.15
WBL	2	3400	70	.02	160	.05
WBT	2	3400	600	.18*	760	.23*
WBR	0	0	10		30	
Right Turn Adjustment					SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.67**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	310	.09*	360	.11*
NBT	1	1700	210	.12	210	.12
NBR	1	1700	50	.03	150	.09
SBL	1	1700	40	.02	80	.05
SBT	1	1700	200	.12*	150	.09*
SBR	1	1700	430	.25	400	.24
EBL	1	1700	360	.21*	250	.15*
EBT	2	3400	800	.24	630	.19
EBR	1	1700	270	.16	250	.15
WBL	2	3400	70	.02	160	.05
WBT	2	3400	600	.18*	760	.23*
WBR	0	0	10		30	
Right Turn Adjustment					SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.67**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	310	.09*	360	.11*
NBT	1	1700	210	.12	210	.12
NBR	1	1700	50	.03	150	.09
SBL	1	1700	40	.02	80	.05
SBT	1	1700	200	.12*	150	.09*
SBR	1	1700	430	.25	400	.24
EBL	1	1700	360	.21*	250	.15*
EBT	2	3400	800	.24	630	.19
EBR	1	1700	270	.16	250	.15
WBL	2	3400	70	.02	160	.05
WBT	2	3400	600	.18*	760	.23*
WBR	0	0	10		30	
Right Turn Adjustment					SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.67**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	310	.09*	360	.11*
NBT	1	1700	210	.12	210	.12
NBR	1	1700	50	.03	150	.09
SBL	1	1700	40	.02	80	.05
SBT	1	1700	200	.12*	150	.09*
SBR	1	1700	430	.25	400	.24
EBL	1	1700	360	.21*	250	.15*
EBT	2	3400	800	.24	630	.19
EBR	1	1700	270	.16	250	.15
WBL	2	3400	70	.02	160	.05
WBT	2	3400	600	.18*	760	.23*
WBR	0	0	10		30	
Right Turn Adjustment					SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.67**

25. Cm Capistrano & Del Obispo

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	550	.16*
NBT	1	1700	480	.28	510	.30
NBR	1	1700	140	.08	230	.14
SBL	1	1700	30	.02	60	.04
SBT	1	1700	310	.18*	370	.22*
SBR	1	1700	450	.26	360	.21
EBL	1	1700	400	.24*	360	.21*
EBT	2	3400	480	.14	540	.16
EBR	1	1700	410	.24	420	.25
WBL	2	3400	150	.04	360	.11
WBT	2	3400	480	.15*	560	.18*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.76** **.82**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	550	.16*
NBT	1	1700	480	.28	510	.30
NBR	1	1700	140	.08	230	.14
SBL	1	1700	30	.02	60	.04
SBT	1	1700	310	.18*	370	.22*
SBR	1	1700	450	.26	360	.21
EBL	1	1700	400	.24*	360	.21*
EBT	2	3400	480	.14	540	.16
EBR	1	1700	410	.24	420	.25
WBL	2	3400	150	.04	360	.11
WBT	2	3400	480	.15*	560	.18*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.76** **.82**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	550	.16*
NBT	1	1700	480	.28	510	.30
NBR	1	1700	140	.08	230	.14
SBL	1	1700	30	.02	60	.04
SBT	1	1700	310	.18*	370	.22*
SBR	1	1700	450	.26	360	.21
EBL	1	1700	400	.24*	360	.21*
EBT	2	3400	480	.14	540	.16
EBR	1	1700	410	.24	420	.25
WBL	2	3400	150	.04	360	.11
WBT	2	3400	480	.15*	560	.18*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.76** **.82**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	550	.16*
NBT	1	1700	480	.28	510	.30
NBR	1	1700	140	.08	230	.14
SBL	1	1700	30	.02	60	.04
SBT	1	1700	310	.18*	370	.22*
SBR	1	1700	450	.26	360	.21
EBL	1	1700	400	.24*	360	.21*
EBT	2	3400	480	.14	540	.16
EBR	1	1700	410	.24	420	.25
WBL	2	3400	150	.04	360	.11
WBT	2	3400	480	.15*	560	.18*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.76** **.82**

25. Cm Capistrano & Del Obispo

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	560	.16*
NBT	1	1700	420	.25	460	.27
NBR	1	1700	120	.07	210	.12
SBL	1	1700	30	.02	60	.04
SBT	1	1700	270	.16*	300	.18*
SBR	1	1700	430	.25	360	.21
EBL	1	1700	390	.23*	340	.20*
EBT	2	3400	520	.15	480	.14
EBR	1	1700	410	.24	430	.25
WBL	2	3400	130	.04	280	.08
WBT	2	3400	480	.15*	600	.19*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.78**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	560	.16*
NBT	1	1700	420	.25	460	.27
NBR	1	1700	120	.07	210	.12
SBL	1	1700	30	.02	60	.04
SBT	1	1700	270	.16*	300	.18*
SBR	1	1700	430	.25	360	.21
EBL	1	1700	390	.23*	340	.20*
EBT	2	3400	520	.15	480	.14
EBR	1	1700	410	.24	430	.25
WBL	2	3400	130	.04	280	.08
WBT	2	3400	480	.15*	600	.19*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.78**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	560	.16*
NBT	1	1700	420	.25	460	.27
NBR	1	1700	120	.07	210	.12
SBL	1	1700	30	.02	60	.04
SBT	1	1700	270	.16*	300	.18*
SBR	1	1700	430	.25	360	.21
EBL	1	1700	390	.23*	340	.20*
EBT	2	3400	520	.15	480	.14
EBR	1	1700	410	.24	430	.25
WBL	2	3400	130	.04	280	.08
WBT	2	3400	480	.15*	600	.19*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.78**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	560	.16*
NBT	1	1700	420	.25	460	.27
NBR	1	1700	120	.07	210	.12
SBL	1	1700	30	.02	60	.04
SBT	1	1700	270	.16*	300	.18*
SBR	1	1700	430	.25	360	.21
EBL	1	1700	390	.23*	340	.20*
EBT	2	3400	520	.15	480	.14
EBR	1	1700	410	.24	430	.25
WBL	2	3400	130	.04	280	.08
WBT	2	3400	480	.15*	600	.19*
WBR	0	0	20		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.72**		**.78**

26. Cm Capistrano San Juan Creek

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	310	.09*	390	.11*
NBR	1	1700	310	.18	360	.21
SBL	2	3400	260	.08*	350	.10*
SBT	2	3400	440	.13	580	.17
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		410		510	
WBT	0	5100	0	{.15}*	0	{.16}*
WBR	1.5		470		420	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.37** **.42**

26. Cm Capistrano San Juan Creek

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	310	.09*	430	.13*
NBR	1	1700	290	.17	350	.21
SBL	2	3400	270	.08*	320	.09*
SBT	2	3400	460	.14	560	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		430		480	
WBT	0	5100	0	{.15}*	0	{.15}*
WBR	1.5		460		400	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.37** **.42**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	310	.09*	430	.13*
NBR	1	1700	290	.17	350	.21
SBL	2	3400	270	.08*	320	.09*
SBT	2	3400	460	.14	560	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		430		480	
WBT	0	5100	0	{.15}*	0	{.15}*
WBR	1.5		460		400	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.37** **.42**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	310	.09*	430	.13*
NBR	1	1700	290	.17	350	.21
SBL	2	3400	270	.08*	320	.09*
SBT	2	3400	460	.14	560	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		430		480	
WBT	0	5100	0	{.15}*	0	{.15}*
WBR	1.5		460		400	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.37** **.42**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	310	.09*	430	.13*
NBR	1	1700	290	.17	350	.21
SBL	2	3400	270	.08*	320	.09*
SBT	2	3400	460	.14	560	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		430		480	
WBT	0	5100	0	{.15}*	0	{.15}*
WBR	1.5		460		400	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.37** **.42**

26. Cm Capistrano San Juan Creek

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	590	.17*	540	.16*
NBR	1	1700	580	.34	500	.29
SBL	2	3400	580	.17*	680	.20*
SBT	2	3400	550	.16	730	.21
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		730	.21*	840	.25*
WBT	0	5100	0		0	
WBR	1.5		540	{.19}	640	{.23}
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.60** **.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	590	.17*	540	.16*
NBR	1	1700	580	.34	500	.29
SBL	2	3400	580	.17*	680	.20*
SBT	2	3400	550	.16	730	.21
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		730	.21*	840	.25*
WBT	0	5100	0		0	
WBR	1.5		540	{.19}	640	{.23}
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.60** **.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	590	.17*	540	.16*
NBR	1	1700	580	.34	500	.29
SBL	2	3400	580	.17*	680	.20*
SBT	2	3400	550	.16	730	.21
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		730	.21*	840	.25*
WBT	0	5100	0		0	
WBR	1.5		540	{.19}	640	{.23}
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.60** **.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	590	.17*	540	.16*
NBR	1	1700	580	.34	500	.29
SBL	2	3400	580	.17*	680	.20*
SBT	2	3400	550	.16	730	.21
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		730	.21*	840	.25*
WBT	0	5100	0		0	
WBR	1.5		540	{.19}	640	{.23}
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.60** **.66**

26. Cm Capistrano San Juan Creek

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	510	.15*	510	.15*
NBR	1	1700	640	.38	550	.32
SBL	2	3400	520	.15*	590	.17*
SBT	2	3400	550	.16	660	.19
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		710	.21*	810	.24*
WBT	0	5100	0		0	
WBR	1.5		540	{.21}	620	{.24}
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.58** **.61**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	510	.15*	510	.15*
NBR	1	1700	640	.38	550	.32
SBL	2	3400	520	.15*	590	.17*
SBT	2	3400	550	.16	660	.19
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		710	.21*	810	.24*
WBT	0	5100	0		0	
WBR	1.5		540	{.21}	620	{.24}
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.58** **.61**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	510	.15*	510	.15*
NBR	1	1700	640	.38	550	.32
SBL	2	3400	520	.15*	590	.17*
SBT	2	3400	550	.16	660	.19
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		710	.21*	810	.24*
WBT	0	5100	0		0	
WBR	1.5		540	{.21}	620	{.24}
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.58** **.61**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	510	.15*	510	.15*
NBR	1	1700	640	.38	550	.32
SBL	2	3400	520	.15*	590	.17*
SBT	2	3400	550	.16	660	.19
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		710	.21*	810	.24*
WBT	0	5100	0		0	
WBR	1.5		540	{.21}	620	{.24}
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION **.58** **.61**

27. Cm Capistrano & I-5 SB Ramps

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	360	.11*	460	.14*
NBR	f		20		30	
SBL	2	3400	420	.12*	530	.16*
SBT	2	3400	430	.13	560	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	600	.18*	780	.23*
WBT	0	0	0		0	
WBR	1	1700	260	.15	290	.17
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.46**		**.58**

27. Cm Capistrano & I-5 SB Ramps

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	360	.11*	440	.13*
NBR	f		20		60	
SBL	2	3400	440	.13*	490	.14*
SBT	2	3400	450	.13	550	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	690	.20*	750	.22*
WBT	0	0	0		0	
WBR	1	1700	240	.14	380	.22
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.54**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	360	.11*	440	.13*
NBR	f		20		60	
SBL	2	3400	440	.13*	490	.14*
SBT	2	3400	450	.13	550	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	690	.20*	750	.22*
WBT	0	0	0		0	
WBR	1	1700	240	.14	380	.22
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.54**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	360	.11*	440	.13*
NBR	f		20		60	
SBL	2	3400	440	.13*	490	.14*
SBT	2	3400	450	.13	550	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	690	.20*	750	.22*
WBT	0	0	0		0	
WBR	1	1700	240	.14	380	.22
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.54**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	360	.11*	440	.13*
NBR	f		20		60	
SBL	2	3400	440	.13*	490	.14*
SBT	2	3400	450	.13	550	.16
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	690	.20*	750	.22*
WBT	0	0	0		0	
WBR	1	1700	240	.14	380	.22
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.54**

27. Cm Capistrano & I-5 SB Ramps

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	880	.26*	690	.20*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	720	.21	970	.29
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	630	.19*	840	.25*
WBT	0	0	0		0	
WBR	1	1700	300	.18	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.68**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	880	.26*	690	.20*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	720	.21	970	.29
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	630	.19*	840	.25*
WBT	0	0	0		0	
WBR	1	1700	300	.18	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.68**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	880	.26*	690	.20*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	720	.21	970	.29
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	630	.19*	840	.25*
WBT	0	0	0		0	
WBR	1	1700	300	.18	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.68**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	880	.26*	690	.20*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	720	.21	970	.29
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	630	.19*	840	.25*
WBT	0	0	0		0	
WBR	1	1700	300	.18	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.68**

27. Cm Capistrano & I-5 SB Ramps

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	800	.24*	600	.18*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	700	.21	880	.26
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	640	.19*	940	.28*
WBT	0	0	0		0	
WBR	1	1700	350	.21	460	.27
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.69**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	800	.24*	600	.18*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	700	.21	880	.26
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	640	.19*	940	.28*
WBT	0	0	0		0	
WBR	1	1700	350	.21	460	.27
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.69**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	800	.24*	600	.18*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	700	.21	880	.26
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	640	.19*	940	.28*
WBT	0	0	0		0	
WBR	1	1700	350	.21	460	.27
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.69**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	2	3400	800	.24*	600	.18*
NBR	f		50		50	
SBL	2	3400	560	.16*	600	.18*
SBT	2	3400	700	.21	880	.26
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	640	.19*	940	.28*
WBT	0	0	0		0	
WBR	1	1700	350	.21	460	.27
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.69**

28. Valle & San Juan Creek

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	340	.20*	440	.26*
NBT	0	0	0		0	
NBR	1	1700	110	.06	230	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	330	.19	370	.22
EBR	1	1700	240	.14	340	.20
WBL	1	1700	140	.08	60	.04
WBT	1	1700	540	.32*	490	.29*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.60**

28. Valle & San Juan Creek

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	340	.20*	460	.27*
NBT	0	0	0		0	
NBR	1	1700	100	.06	220	.13
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	330	.19	350	.21
EBR	1	1700	230	.14	320	.19
WBL	1	1700	150	.09	70	.04
WBT	1	1700	550	.32*	510	.30*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.62**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	340	.20*	460	.27*
NBT	0	0	0		0	
NBR	1	1700	100	.06	220	.13
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	330	.19	350	.21
EBR	1	1700	230	.14	320	.19
WBL	1	1700	150	.09	70	.04
WBT	1	1700	550	.32*	510	.30*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.62**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	340	.20*	460	.27*
NBT	0	0	0		0	
NBR	1	1700	100	.06	220	.13
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	330	.19	350	.21
EBR	1	1700	230	.14	320	.19
WBL	1	1700	150	.09	70	.04
WBT	1	1700	550	.32*	510	.30*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.62**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	340	.20*	460	.27*
NBT	0	0	0		0	
NBR	1	1700	100	.06	220	.13
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	330	.19	350	.21
EBR	1	1700	230	.14	320	.19
WBL	1	1700	150	.09	70	.04
WBT	1	1700	550	.32*	510	.30*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.62**

28. Valle & San Juan Creek

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	350	.21	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	600	.35
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	110	.06
WBT	1	1700	880	.52*	920	.54*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.93**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	350	.21	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	600	.35
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	110	.06
WBT	1	1700	880	.52*	920	.54*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.93**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	350	.21	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	600	.35
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	110	.06
WBT	1	1700	880	.52*	920	.54*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.93**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	350	.21	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	600	.35
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	110	.06
WBT	1	1700	880	.52*	920	.54*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.93**

28. Valle & San Juan Creek

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	340	.20	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	560	.33
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	130	.08
WBT	1	1700	860	.51*	870	.51*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.90**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	340	.20	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	560	.33
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	130	.08
WBT	1	1700	860	.51*	870	.51*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.90**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	340	.20	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	560	.33
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	130	.08
WBT	1	1700	860	.51*	870	.51*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.90**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	390	.23*	570	.34*
NBT	0	0	0		0	
NBR	1	1700	340	.20	240	.14
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	1	1700	520	.31	560	.33
EBR	1	1700	630	.37	580	.34
WBL	1	1700	240	.14	130	.08
WBT	1	1700	860	.51*	870	.51*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.90**

29. Valle & La Novia

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	40	.02*	130	.08*
NBT	1	1700	60	.04	160	.11
NBR	0	0	10		30	
SBL	0	0	20		90	
SBT	1	1700	170	.11*	130	.13*
SBR	1	1700	190	.11	180	.11
EBL	0	0	320	{.19}*	400	
EBT	1	1700	40	.21	60	.27*
EBR	1	1700	50	.03	60	.04
WBL	0	0	10		30	{.02}*
WBT	1	1700	170	.11*	30	.04
WBR	1	1700	70	.04	110	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.48**		**.55**

29. Valle & La Novia

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	70	.04*	160	.09*
NBT	1	1700	70	.05	160	.11
NBR	0	0	10		30	
SBL	0	0	10		80	
SBT	1	1700	180	.11*	160	.14*
SBR	1	1700	210	.12	190	.11
EBL	0	0	310	{.18}*	380	
EBT	1	1700	30	.20	50	.25*
EBR	1	1700	70	.04	80	.05
WBL	0	0	10		30	{.02}*
WBT	1	1700	160	.10*	10	.02
WBR	1	1700	50	.03	90	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.48** **.55**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	70	.04*	160	.09*
NBT	1	1700	70	.05	160	.11
NBR	0	0	10		30	
SBL	0	0	10		80	
SBT	1	1700	180	.11*	160	.14*
SBR	1	1700	210	.12	190	.11
EBL	0	0	310	{.18}*	380	
EBT	1	1700	30	.20	50	.25*
EBR	1	1700	70	.04	80	.05
WBL	0	0	10		30	{.02}*
WBT	1	1700	160	.10*	10	.02
WBR	1	1700	50	.03	90	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.48** **.55**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	70	.04*	160	.09*
NBT	1	1700	70	.05	160	.11
NBR	0	0	10		30	
SBL	0	0	10		80	
SBT	1	1700	180	.11*	160	.14*
SBR	1	1700	210	.12	190	.11
EBL	0	0	310	{.18}*	380	
EBT	1	1700	30	.20	50	.25*
EBR	1	1700	70	.04	80	.05
WBL	0	0	10		30	{.02}*
WBT	1	1700	160	.10*	10	.02
WBR	1	1700	50	.03	90	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.48** **.55**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	70	.04*	160	.09*
NBT	1	1700	70	.05	160	.11
NBR	0	0	10		30	
SBL	0	0	10		80	
SBT	1	1700	180	.11*	160	.14*
SBR	1	1700	210	.12	190	.11
EBL	0	0	310	{.18}*	380	
EBT	1	1700	30	.20	50	.25*
EBR	1	1700	70	.04	80	.05
WBL	0	0	10		30	{.02}*
WBT	1	1700	160	.10*	10	.02
WBR	1	1700	50	.03	90	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.48** **.55**

29. Valle & La Novia

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		120	
SBT	1	1700	300	.21*	230	.21*
SBR	1	1700	500	.29	330	.19
EBL	0	0	380	{.22}*	370	{.22}*
EBT	1	1700	60	.26	80	.26
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	
WBT	1	1700	290	.18*	90	.06*
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.72** **.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		120	
SBT	1	1700	300	.21*	230	.21*
SBR	1	1700	500	.29	330	.19
EBL	0	0	380	{.22}*	370	{.22}*
EBT	1	1700	60	.26	80	.26
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	
WBT	1	1700	290	.18*	90	.06*
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.72** **.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		120	
SBT	1	1700	300	.21*	230	.21*
SBR	1	1700	500	.29	330	.19
EBL	0	0	380	{.22}*	370	{.22}*
EBT	1	1700	60	.26	80	.26
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	
WBT	1	1700	290	.18*	90	.06*
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.72** **.65**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		120	
SBT	1	1700	300	.21*	230	.21*
SBR	1	1700	500	.29	330	.19
EBL	0	0	380	{.22}*	370	{.22}*
EBT	1	1700	60	.26	80	.26
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	
WBT	1	1700	290	.18*	90	.06*
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.72** **.65**

29. Valle & La Novia

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		130	
SBT	1	1700	300	.21*	200	.19*
SBR	1	1700	510	.30	380	.22
EBL	0	0	370	{.22}*	380	
EBT	1	1700	60	.25	90	.28*
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	{.01}*
WBT	1	1700	300	.19*	90	.06
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.64**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		130	
SBT	1	1700	300	.21*	200	.19*
SBR	1	1700	510	.30	380	.22
EBL	0	0	370	{.22}*	380	
EBT	1	1700	60	.25	90	.28*
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	{.01}*
WBT	1	1700	300	.19*	90	.06
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.64**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		130	
SBT	1	1700	300	.21*	200	.19*
SBR	1	1700	510	.30	380	.22
EBL	0	0	370	{.22}*	380	
EBT	1	1700	60	.25	90	.28*
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	{.01}*
WBT	1	1700	300	.19*	90	.06
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.64**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	100	.06*	180	.11*
NBT	1	1700	200	.13	310	.21
NBR	0	0	20		40	
SBL	0	0	50		130	
SBT	1	1700	300	.21*	200	.19*
SBR	1	1700	510	.30	380	.22
EBL	0	0	370	{.22}*	380	
EBT	1	1700	60	.25	90	.28*
EBR	1	1700	80	.05	70	.04
WBL	0	0	20		20	{.01}*
WBT	1	1700	300	.19*	90	.06
WBR	1	1700	150	.09	110	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.64**

30. La Novia & San Juan Creek

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	120	.07	90	.05
NBT	1	1700	180	.11*	160	.09*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	150	.09*	180	.11*
SBT	1	1700	150	.09	190	.11
SBR	1	1700	310	.18	250	.15
EBL	1	1700	170	.10*	150	.09*
EBT	1	1700	130	.08	120	.07
EBR	1	1700	80	.05	10	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	220	.13*	120	.07*
WBR	1	1700	270	.16	250	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION **.48** **.41**

30. La Novia & San Juan Creek

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	120	.07	90	.05
NBT	1	1700	180	.11*	170	.10*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	150	.09*	200	.12*
SBT	1	1700	150	.09	170	.10
SBR	1	1700	290	.17	250	.15
EBL	1	1700	170	.10*	150	.09*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	10	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	220	.13*	100	.06*
WBR	1	1700	280	.16	250	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .48 .42

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	120	.07	90	.05
NBT	1	1700	180	.11*	170	.10*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	150	.09*	200	.12*
SBT	1	1700	150	.09	170	.10
SBR	1	1700	290	.17	250	.15
EBL	1	1700	170	.10*	150	.09*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	10	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	220	.13*	100	.06*
WBR	1	1700	280	.16	250	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .48 .42

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	120	.07	90	.05
NBT	1	1700	180	.11*	170	.10*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	150	.09*	200	.12*
SBT	1	1700	150	.09	170	.10
SBR	1	1700	290	.17	250	.15
EBL	1	1700	170	.10*	150	.09*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	10	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	220	.13*	100	.06*
WBR	1	1700	280	.16	250	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .48 .42

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	120	.07	90	.05
NBT	1	1700	180	.11*	170	.10*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	150	.09*	200	.12*
SBT	1	1700	150	.09	170	.10
SBR	1	1700	290	.17	250	.15
EBL	1	1700	170	.10*	150	.09*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	10	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	220	.13*	100	.06*
WBR	1	1700	280	.16	250	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .48 .42

30. La Novia & San Juan Creek

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	270	.16
SBR	1	1700	320	.19	310	.18
EBL	1	1700	160	.09*	180	.11*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION **.51** **.45**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	270	.16
SBR	1	1700	320	.19	310	.18
EBL	1	1700	160	.09*	180	.11*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION **.51** **.45**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	270	.16
SBR	1	1700	320	.19	310	.18
EBL	1	1700	160	.09*	180	.11*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION **.51** **.45**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	270	.16
SBR	1	1700	320	.19	310	.18
EBL	1	1700	160	.09*	180	.11*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION **.51** **.45**

30. La Novia & San Juan Creek

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	250	.15
SBR	1	1700	290	.17	260	.15
EBL	1	1700	150	.09*	110	.06*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .51 .40

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	250	.15
SBR	1	1700	290	.17	260	.15
EBL	1	1700	150	.09*	110	.06*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .51 .40

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	250	.15
SBR	1	1700	290	.17	260	.15
EBL	1	1700	150	.09*	110	.06*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .51 .40

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	130	.08	90	.05
NBT	1	1700	250	.15*	190	.11*
NBR	1	1700	40	.02	10	.01
SBL	1	1700	170	.10*	200	.12*
SBT	1	1700	160	.09	250	.15
SBR	1	1700	290	.17	260	.15
EBL	1	1700	150	.09*	110	.06*
EBT	1	1700	120	.07	100	.06
EBR	1	1700	90	.05	20	.01
WBL	1	1700	50	.03	100	.06
WBT	1	1700	210	.12*	100	.06*
WBR	1	1700	270	.16	260	.15
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .51 .40

31. La Pata & Vista Montana

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	40	.01	60	.02*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	20	.01	10	.01*
SBT	2	3400	70	.02*	30	.01
SBR	1	1700	900	.53	130	.08
EBL	2	3400	620	.18*	240	.07*
EBT	1	1700	10	.01	10	.01
EBR	0	0	10		10	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	10		10	
Right Turn Adjustment			SBR	.37*	SBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.17**

31. La Pata & Vista Montana

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1140	.34	1240	.36*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1380	.41*	1020	.30
SBR	1	1700	780	.46	100	.06
EBL	2	3400	630	.19*	240	.07*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	30		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.52**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1140	.34	1250	.37*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1390	.41*	1030	.30
SBR	1	1700	780	.46	100	.06
EBL	2	3400	630	.19*	240	.07*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	30		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.53**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1140	.34	1250	.37*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1390	.41*	1030	.30
SBR	1	1700	780	.46	100	.06
EBL	2	3400	630	.19*	240	.07*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	30		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.53**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1140	.34	1250	.37*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1390	.41*	1030	.30
SBR	1	1700	780	.46	100	.06
EBL	2	3400	630	.19*	240	.07*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	30		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.75**		**.53**

31. La Pata & Vista Montana

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	220	.13*	60	.04
NBT	2	3400	1670	.49	1670	.49*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1750	.51*	1400	.41
SBR	1	1700	750	.44	140	.08
EBL	2	3400	530	.16*	280	.08*
EBT	1	1700	10	.11	10	.04
EBR	0	0	180		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.87**		**.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	220	.13*	60	.04
NBT	2	3400	1670	.49	1680	.49*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1760	.52*	1410	.41
SBR	1	1700	750	.44	140	.08
EBL	2	3400	530	.16*	280	.08*
EBT	1	1700	10	.11	10	.04
EBR	0	0	180		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.88**		**.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	220	.13*	60	.04
NBT	2	3400	1670	.49	1680	.49*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1760	.52*	1410	.41
SBR	1	1700	750	.44	140	.08
EBL	2	3400	530	.16*	280	.08*
EBT	1	1700	10	.11	10	.04
EBR	0	0	180		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.88**		**.66**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	220	.13*	60	.04
NBT	2	3400	1670	.49	1680	.49*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	30	.02*
SBT	2	3400	1760	.52*	1410	.41
SBR	1	1700	750	.44	140	.08
EBL	2	3400	530	.16*	280	.08*
EBT	1	1700	10	.11	10	.04
EBR	0	0	180		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.88**		**.66**

31. La Pata & Vista Montana

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1000	.29	1090	.32*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	20	.01*
SBT	2	3400	1130	.33*	900	.26
SBR	1	1700	830	.49	140	.08
EBL	2	3400	640	.19*	260	.08*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Right Turn Adjustment			SBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.48**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1000	.29	1100	.32*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	20	.01*
SBT	2	3400	1140	.34*	900	.26
SBR	1	1700	830	.49	140	.08
EBL	2	3400	640	.19*	260	.08*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.48**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1000	.29	1100	.32*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	20	.01*
SBT	2	3400	1140	.34*	900	.26
SBR	1	1700	830	.49	140	.08
EBL	2	3400	640	.19*	260	.08*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.48**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	140	.08*	60	.04
NBT	2	3400	1000	.29	1100	.32*
NBR	d	1700	10	.01	10	.01
SBL	1	1700	30	.02	20	.01*
SBT	2	3400	1140	.34*	900	.26
SBR	1	1700	830	.49	140	.08
EBL	2	3400	640	.19*	260	.08*
EBT	1	1700	10	.09	10	.04
EBR	0	0	140		60	
WBL	1	1700	10	.01	10	.01
WBT	1	1700	10	.02*	10	.02*
WBR	0	0	20		30	
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.48**

32. La Pata & Del Rio

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	90	.06*	190	.12*
NBT	2	3200	950	.30	1090	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1090	.34*	990	.31*
SBR	1	1600	120	.08	160	.10
EBL	0.5		110		100	.06*
EBT	0	3200	0	{.08}*	0	
EBR	1.5		210		120	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION **.48** **.49**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	90	.06*	190	.12*
NBT	2	3200	950	.30	1100	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1100	.34*	1000	.31*
SBR	1	1600	120	.08	160	.10
EBL	0.5		110		100	.06*
EBT	0	3200	0	{.08}*	0	
EBR	1.5		210		120	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION **.48** **.49**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	90	.06*	190	.12*
NBT	2	3200	950	.30	1100	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1100	.34*	1000	.31*
SBR	1	1600	120	.08	160	.10
EBL	0.5		110		100	.06*
EBT	0	3200	0	{.08}*	0	
EBR	1.5		210		120	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION **.48** **.49**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	90	.06*	190	.12*
NBT	2	3200	950	.30	1100	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1100	.34*	1000	.31*
SBR	1	1600	120	.08	160	.10
EBL	0.5		110		100	.06*
EBT	0	3200	0	{.08}*	0	
EBR	1.5		210		120	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION **.48** **.49**

32. La Pata & Del Rio

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12*	510	.32
NBT	2	3200	1010	.32	2330	.73*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	2160	.49*	1040	.27
SBR	0	0	190		270	
EBL	0.5		190		240	.15*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		480		280	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .77 .88

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12*	510	.32
NBT	2	3200	1010	.32	2340	.73*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	2170	.49*	1050	.28
SBR	0	0	190		270	
EBL	0.5		190		240	.15*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		480		280	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .77 .88

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12*	510	.32
NBT	2	3200	1010	.32	2340	.73*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	2170	.49*	1050	.28
SBR	0	0	190		270	
EBL	0.5		190		240	.15*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		480		280	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .77 .88

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12*	510	.32
NBT	2	3200	1010	.32	2340	.73*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	2170	.49*	1050	.28
SBR	0	0	190		270	
EBL	0.5		190		240	.15*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		480		280	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .77 .88

32. La Pata & Del Rio

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	120	.08*	460	.29
NBT	2	3200	430	.13	1600	.50*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1730	.54*	400	.13
SBR	1	1600	360	.23	190	.12
EBL	0.5		150		340	.21*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		450		210	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .78 .71

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	120	.08*	460	.29
NBT	2	3200	430	.13	1610	.50*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1740	.54*	400	.13
SBR	1	1600	360	.23	190	.12
EBL	0.5		150		340	.21*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		450		210	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .78 .71

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	120	.08*	460	.29
NBT	2	3200	430	.13	1610	.50*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1740	.54*	400	.13
SBR	1	1600	360	.23	190	.12
EBL	0.5		150		340	.21*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		450		210	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .78 .71

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	120	.08*	460	.29
NBT	2	3200	430	.13	1610	.50*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1740	.54*	400	.13
SBR	1	1600	360	.23	190	.12
EBL	0.5		150		340	.21*
EBT	0	3200	0	{.16}*	0	
EBR	1.5		450		210	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .78 .71

33. La Pata & Hermosa

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	100	.03*	290	.09*
NBT	3	4800	70	.01	100	.02
NBR	1	1600	70	.04	100	.06
SBL	1	1600	10	.01	10	.01
SBT	3	4800	90	.02*	60	.01*
SBR	1	1600	350	.22	170	.11
EBL	1	1600	90	.06*	190	.12*
EBT	2	3200	430	.13	620	.19
EBR	1	1600	240	.15	130	.08
WBL	2	3200	90	.03	80	.03
WBT	2	3200	610	.19*	490	.15*
WBR	1	1600	40	.03	10	.01
Right Turn Adjustment			SBR	.15*	SBR	.01*
TOTAL CAPACITY UTILIZATION				**.45**		**.38**

33. La Pata & Hermosa

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	70	.02*	240	.08
NBT	3	4800	580	.12	780	.16*
NBR	1	1600	70	.04	110	.07
SBL	1	1600	90	.06	70	.04*
SBT	3	4800	780	.16*	470	.10
SBR	1	1600	400	.25	470	.29
EBL	1	1600	300	.19*	200	.13*
EBT	2	3200	330	.10	510	.16
EBR	1	1600	390	.24	270	.17
WBL	2	3200	90	.03	90	.03
WBT	2	3200	530	.17*	400	.13*
WBR	1	1600	90	.06	270	.17
Right Turn Adjustment					Multi	.08*
TOTAL CAPACITY UTILIZATION				**.54**		**.54**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	70	.02*	240	.08
NBT	3	4800	580	.12	780	.16*
NBR	1	1600	70	.04	110	.07
SBL	1	1600	90	.06	70	.04*
SBT	3	4800	780	.16*	470	.10
SBR	1	1600	400	.25	470	.29
EBL	1	1600	300	.19*	200	.13*
EBT	2	3200	330	.10	510	.16
EBR	1	1600	390	.24	270	.17
WBL	2	3200	90	.03	90	.03
WBT	2	3200	540	.17*	400	.13*
WBR	1	1600	100	.06	270	.17
Right Turn Adjustment					Multi	.08*
TOTAL CAPACITY UTILIZATION				**.54**		**.54**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	70	.02*	240	.08
NBT	3	4800	580	.12	780	.16*
NBR	1	1600	70	.04	110	.07
SBL	1	1600	90	.06	70	.04*
SBT	3	4800	780	.16*	470	.10
SBR	1	1600	400	.25	470	.29
EBL	1	1600	300	.19*	200	.13*
EBT	2	3200	330	.10	510	.16
EBR	1	1600	390	.24	270	.17
WBL	2	3200	90	.03	90	.03
WBT	2	3200	540	.17*	400	.13*
WBR	1	1600	100	.06	270	.17
Right Turn Adjustment					Multi	.08*
TOTAL CAPACITY UTILIZATION				**.54**		**.54**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	70	.02*	240	.08
NBT	3	4800	580	.12	780	.16*
NBR	1	1600	70	.04	110	.07
SBL	1	1600	90	.06	70	.04*
SBT	3	4800	780	.16*	470	.10
SBR	1	1600	400	.25	470	.29
EBL	1	1600	300	.19*	200	.13*
EBT	2	3200	330	.10	510	.16
EBR	1	1600	390	.24	270	.17
WBL	2	3200	90	.03	90	.03
WBT	2	3200	540	.17*	400	.13*
WBR	1	1600	100	.06	270	.17
Right Turn Adjustment					Multi	.08*
TOTAL CAPACITY UTILIZATION				**.54**		**.54**

33. La Pata & Hermosa

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	220	.07*	600	.19
NBT	3	4800	530	.11	1430	.30*
NBR	1	1600	120	.08	290	.18
SBL	1	1600	260	.16	130	.08*
SBT	3	4800	1480	.31*	550	.11
SBR	1	1600	820	.51	380	.24
EBL	2	3200	400	.13	650	.20*
EBT	2	3200	550	.27*	610	.26
EBR	0	0	310		230	
WBL	2	3200	340	.11*	280	.09
WBT	2	3200	460	.14	590	.18*
WBR	1	1600	180	.11	310	.19
Right Turn Adjustment			SBR	.02*		
TOTAL CAPACITY UTILIZATION			**.78**		**.76**	

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	220	.07*	600	.19
NBT	3	4800	530	.11	1430	.30*
NBR	1	1600	120	.08	290	.18
SBL	1	1600	260	.16	130	.08*
SBT	3	4800	1480	.31*	550	.11
SBR	1	1600	820	.51	380	.24
EBL	2	3200	400	.13	650	.20*
EBT	2	3200	550	.27*	610	.26
EBR	0	0	310		230	
WBL	2	3200	340	.11*	280	.09
WBT	2	3200	470	.15	590	.18*
WBR	1	1600	190	.12	310	.19
Right Turn Adjustment			SBR	.03*		
TOTAL CAPACITY UTILIZATION			**.79**		**.76**	

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	220	.07*	600	.19
NBT	3	4800	530	.11	1430	.30*
NBR	1	1600	120	.08	290	.18
SBL	1	1600	260	.16	130	.08*
SBT	3	4800	1480	.31*	550	.11
SBR	1	1600	820	.51	380	.24
EBL	2	3200	400	.13	650	.20*
EBT	2	3200	550	.27*	610	.26
EBR	0	0	310		230	
WBL	2	3200	340	.11*	280	.09
WBT	2	3200	470	.15	590	.18*
WBR	1	1600	190	.12	310	.19
Right Turn Adjustment			SBR	.03*		
TOTAL CAPACITY UTILIZATION			**.79**		**.76**	

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	220	.07*	600	.19
NBT	3	4800	530	.11	1430	.30*
NBR	1	1600	120	.08	290	.18
SBL	1	1600	260	.16	130	.08*
SBT	3	4800	1480	.31*	550	.11
SBR	1	1600	820	.51	380	.24
EBL	2	3200	400	.13	650	.20*
EBT	2	3200	550	.27*	610	.26
EBR	0	0	310		230	
WBL	2	3200	340	.11*	280	.09
WBT	2	3200	470	.15	590	.18*
WBR	1	1600	190	.12	310	.19
Right Turn Adjustment			SBR	.03*		
TOTAL CAPACITY UTILIZATION			**.79**		**.76**	

33. La Pata & Hermosa

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	50	.02*	380	.12
NBT	3	4800	170	.04	1210	.25*
NBR	1	1600	40	.03	240	.15
SBL	1	1600	250	.16	120	.08*
SBT	3	4800	1290	.27*	190	.04
SBR	1	1600	600	.38	170	.11
EBL	1	1600	160	.10*	300	.19*
EBT	2	3200	690	.22	660	.21
EBR	1	1600	290	.18	140	.09
WBL	2	3200	130	.04	130	.04
WBT	2	3200	650	.20*	740	.23*
WBR	1	1600	200	.13	290	.18
Right Turn Adjustment			SBR	.03*		

TOTAL CAPACITY UTILIZATION **.62** **.75**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	50	.02*	380	.12
NBT	3	4800	170	.04	1210	.25*
NBR	1	1600	40	.03	240	.15
SBL	1	1600	250	.16	120	.08*
SBT	3	4800	1290	.27*	190	.04
SBR	1	1600	600	.38	170	.11
EBL	1	1600	160	.10*	300	.19*
EBT	2	3200	690	.22	660	.21
EBR	1	1600	290	.18	140	.09
WBL	2	3200	130	.04	130	.04
WBT	2	3200	650	.20*	740	.23*
WBR	1	1600	200	.13	290	.18
Right Turn Adjustment			SBR	.03*		

TOTAL CAPACITY UTILIZATION **.62** **.75**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	50	.02*	380	.12
NBT	3	4800	170	.04	1210	.25*
NBR	1	1600	40	.03	240	.15
SBL	1	1600	250	.16	120	.08*
SBT	3	4800	1290	.27*	190	.04
SBR	1	1600	600	.38	170	.11
EBL	1	1600	160	.10*	300	.19*
EBT	2	3200	690	.22	660	.21
EBR	1	1600	290	.18	140	.09
WBL	2	3200	130	.04	130	.04
WBT	2	3200	650	.20*	740	.23*
WBR	1	1600	200	.13	290	.18
Right Turn Adjustment			SBR	.03*		

TOTAL CAPACITY UTILIZATION **.62** **.75**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	50	.02*	380	.12
NBT	3	4800	170	.04	1210	.25*
NBR	1	1600	40	.03	240	.15
SBL	1	1600	250	.16	120	.08*
SBT	3	4800	1290	.27*	190	.04
SBR	1	1600	600	.38	170	.11
EBL	1	1600	160	.10*	300	.19*
EBT	2	3200	690	.22	660	.21
EBR	1	1600	290	.18	140	.09
WBL	2	3200	130	.04	130	.04
WBT	2	3200	650	.20*	740	.23*
WBR	1	1600	200	.13	290	.18
Right Turn Adjustment			SBR	.03*		

TOTAL CAPACITY UTILIZATION **.62** **.75**

34. La Pata & Avd Pico

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	90	.06*	350	.22*
NBT	3	4800	100	.02	260	.05
NBR	d	1600	40	.03	70	.04
SBL	1	1600	100	.06	160	.10
SBT	3	4800	250	.05*	120	.03*
SBR	d	1600	100	.06	100	.06
EBL	2	3200	120	.04*	140	.04*
EBT	3	4800	440	.09	430	.09
EBR	d	1600	250	.16	130	.08
WBL	2	3200	110	.03	80	.03
WBT	3	4800	440	.09*	540	.11*
WBR	1	1600	30	.02	60	.04
Right Turn Adjustment			EBR	.01*		
TOTAL CAPACITY UTILIZATION				**.25**		**.40**

34. La Pata & Avd Pico

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	80	.05	330	.21
NBT	3	4800	250	.05*	530	.11*
NBR	d	1600	80	.05	120	.08
SBL	1	1600	610	.38*	470	.29*
SBT	3	4800	550	.11	310	.06
SBR	d	1600	140	.09	170	.11
EBL	2	3200	380	.12*	430	.13*
EBT	3	4800	620	.13	430	.09
EBR	d	1600	170	.11	100	.06
WBL	2	3200	160	.05	170	.05
WBT	3	4800	570	.12*	880	.18*
WBR	1	1600	150	.09	180	.11

TOTAL CAPACITY UTILIZATION **.67** **.71**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	80	.05	330	.21
NBT	3	4800	250	.05*	530	.11*
NBR	d	1600	80	.05	120	.08
SBL	1	1600	610	.38*	470	.29*
SBT	3	4800	550	.11	310	.06
SBR	d	1600	140	.09	170	.11
EBL	2	3200	380	.12*	430	.13*
EBT	3	4800	620	.13	440	.09
EBR	d	1600	170	.11	100	.06
WBL	2	3200	160	.05	170	.05
WBT	3	4800	580	.12*	880	.18*
WBR	1	1600	150	.09	180	.11

TOTAL CAPACITY UTILIZATION **.67** **.71**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	80	.05	330	.21
NBT	3	4800	250	.05*	530	.11*
NBR	d	1600	80	.05	120	.08
SBL	1	1600	610	.38*	470	.29*
SBT	3	4800	550	.11	310	.06
SBR	d	1600	140	.09	170	.11
EBL	2	3200	380	.12*	430	.13*
EBT	3	4800	620	.13	440	.09
EBR	d	1600	170	.11	100	.06
WBL	2	3200	160	.05	170	.05
WBT	3	4800	580	.12*	880	.18*
WBR	1	1600	150	.09	180	.11

TOTAL CAPACITY UTILIZATION **.67** **.71**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	80	.05	330	.21
NBT	3	4800	250	.05*	530	.11*
NBR	d	1600	80	.05	120	.08
SBL	1	1600	610	.38*	470	.29*
SBT	3	4800	550	.11	310	.06
SBR	d	1600	140	.09	170	.11
EBL	2	3200	380	.12*	430	.13*
EBT	3	4800	620	.13	440	.09
EBR	d	1600	170	.11	100	.06
WBL	2	3200	160	.05	170	.05
WBT	3	4800	580	.12*	880	.18*
WBR	1	1600	150	.09	180	.11

TOTAL CAPACITY UTILIZATION **.67** **.71**

34. La Pata & Avd Pico

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	350	.22
NBT	3	4800	210	.04	980	.20*
NBR	1	1600	50	.03	210	.13
SBL	2	3200	590	.18	630	.20*
SBT	2	3200	940	.29*	230	.07
SBR	1	1600	1010	.63	440	.28
EBL	2	3200	330	.10*	940	.29*
EBT	3	4800	730	.15	1270	.26
EBR	1	1600	180	.11	150	.09
WBL	2	3200	320	.10	130	.04
WBT	4	6400	1200	.19*	1050	.16*
WBR	1	1600	390	.24	450	.28
Right Turn Adjustment			SBR	.26*		

TOTAL CAPACITY UTILIZATION **.87** **.85**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	350	.22
NBT	3	4800	210	.04	980	.20*
NBR	1	1600	50	.03	210	.13
SBL	2	3200	590	.18	630	.20*
SBT	2	3200	940	.29*	230	.07
SBR	1	1600	1010	.63	440	.28
EBL	2	3200	330	.10*	940	.29*
EBT	3	4800	730	.15	1280	.27
EBR	1	1600	180	.11	150	.09
WBL	2	3200	320	.10	130	.04
WBT	4	6400	1210	.19*	1050	.16*
WBR	1	1600	390	.24	450	.28
Right Turn Adjustment			SBR	.26*		

TOTAL CAPACITY UTILIZATION **.87** **.85**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	350	.22
NBT	3	4800	210	.04	980	.20*
NBR	1	1600	50	.03	210	.13
SBL	2	3200	590	.18	630	.20*
SBT	2	3200	940	.29*	230	.07
SBR	1	1600	1010	.63	440	.28
EBL	2	3200	330	.10*	940	.29*
EBT	3	4800	730	.15	1280	.27
EBR	1	1600	180	.11	150	.09
WBL	2	3200	320	.10	130	.04
WBT	4	6400	1210	.19*	1050	.16*
WBR	1	1600	390	.24	450	.28
Right Turn Adjustment			SBR	.26*		

TOTAL CAPACITY UTILIZATION **.87** **.85**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	350	.22
NBT	3	4800	210	.04	980	.20*
NBR	1	1600	50	.03	210	.13
SBL	2	3200	590	.18	630	.20*
SBT	2	3200	940	.29*	230	.07
SBR	1	1600	1010	.63	440	.28
EBL	2	3200	330	.10*	940	.29*
EBT	3	4800	730	.15	1280	.27
EBR	1	1600	180	.11	150	.09
WBL	2	3200	320	.10	130	.04
WBT	4	6400	1210	.19*	1050	.16*
WBR	1	1600	390	.24	450	.28
Right Turn Adjustment			SBR	.26*		

TOTAL CAPACITY UTILIZATION **.87** **.85**

34. La Pata & Avd Pico

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	220	.14
NBT	3	4800	120	.03*	930	.19*
NBR	d	1600	170	.11	480	.30
SBL	1	1600	560	.35*	370	.23*
SBT	3	4800	900	.19	140	.03
SBR	d	1600	540	.34	150	.09
EBL	2	3200	130	.04*	650	.20
EBT	3	4800	550	.11	1390	.29*
EBR	d	1600	100	.06	110	.07
WBL	2	3200	510	.16	300	.09*
WBT	3	4800	1190	.25*	800	.17
WBR	1	1600	40	.03	280	.18
Right Turn Adjustment					NBR	.04*
TOTAL CAPACITY UTILIZATION				**.67**		**.84**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	220	.14
NBT	3	4800	120	.03*	930	.19*
NBR	d	1600	170	.11	480	.30
SBL	1	1600	560	.35*	370	.23*
SBT	3	4800	900	.19	140	.03
SBR	d	1600	540	.34	150	.09
EBL	2	3200	130	.04*	650	.20
EBT	3	4800	550	.11	1400	.29*
EBR	d	1600	100	.06	110	.07
WBL	2	3200	510	.16	300	.09*
WBT	3	4800	1200	.25*	800	.17
WBR	1	1600	40	.03	280	.18
Right Turn Adjustment					NBR	.04*
TOTAL CAPACITY UTILIZATION				**.67**		**.84**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	220	.14
NBT	3	4800	120	.03*	930	.19*
NBR	d	1600	170	.11	480	.30
SBL	1	1600	560	.35*	370	.23*
SBT	3	4800	900	.19	140	.03
SBR	d	1600	540	.34	150	.09
EBL	2	3200	130	.04*	650	.20
EBT	3	4800	550	.11	1400	.29*
EBR	d	1600	100	.06	110	.07
WBL	2	3200	510	.16	300	.09*
WBT	3	4800	1200	.25*	800	.17
WBR	1	1600	40	.03	280	.18
Right Turn Adjustment					NBR	.04*
TOTAL CAPACITY UTILIZATION				**.67**		**.84**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	220	.14
NBT	3	4800	120	.03*	930	.19*
NBR	d	1600	170	.11	480	.30
SBL	1	1600	560	.35*	370	.23*
SBT	3	4800	900	.19	140	.03
SBR	d	1600	540	.34	150	.09
EBL	2	3200	130	.04*	650	.20
EBT	3	4800	550	.11	1400	.29*
EBR	d	1600	100	.06	110	.07
WBL	2	3200	510	.16	300	.09*
WBT	3	4800	1200	.25*	800	.17
WBR	1	1600	40	.03	280	.18
Right Turn Adjustment					NBR	.04*
TOTAL CAPACITY UTILIZATION				**.67**		**.84**

35. Hermosa & Pico

Existing Conditions

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	50	.02*	170	.05*
NBT	2	3200	10	.00	100	.03
NBR	0	0	0		0	
SBL	2	3200	90	.03	80	.03
SBT	1	1600	110	.07*	30	.02*
SBR	2	3200	210	.07	150	.05
EBL	2	3200	120	.04*	220	.07*
EBT	3	4800	190	.04	260	.05
EBR	1	1600	160	.10	60	.04
WBL	1	1600	0	.00	0	.00
WBT	3	4800	310	.06*	270	.06*
WBR	d	1600	80	.05	100	.06

TOTAL CAPACITY UTILIZATION **.19** **.20**

35. Hermosa & Pico

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	230	.07*
NBT	2	3200	10	.01	140	.05
NBR	0	0	10		10	
SBL	2	3200	130	.04	120	.04
SBT	1	1600	100	.06*	30	.02*
SBR	2	3200	140	.04	130	.04
EBL	2	3200	100	.03	140	.04*
EBT	3	4800	900	.19*	730	.15
EBR	1	1600	190	.12	30	.02
WBL	1	1600	10	.01*	10	.01
WBT	3	4800	670	.14	790	.16*
WBR	d	1600	120	.08	300	.19

TOTAL CAPACITY UTILIZATION **.28** **.29**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	230	.07*
NBT	2	3200	10	.01	140	.05
NBR	0	0	10		10	
SBL	2	3200	130	.04	130	.04
SBT	1	1600	100	.06*	30	.02*
SBR	2	3200	140	.04	130	.04
EBL	2	3200	100	.03	140	.04*
EBT	3	4800	900	.19*	740	.15
EBR	1	1600	190	.12	30	.02
WBL	1	1600	10	.01*	10	.01
WBT	3	4800	680	.14	800	.17*
WBR	d	1600	130	.08	300	.19

TOTAL CAPACITY UTILIZATION **.28** **.30**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	230	.07*
NBT	2	3200	10	.01	140	.05
NBR	0	0	10		10	
SBL	2	3200	130	.04	130	.04
SBT	1	1600	100	.06*	30	.02*
SBR	2	3200	140	.04	130	.04
EBL	2	3200	100	.03	140	.04*
EBT	3	4800	900	.19*	740	.15
EBR	1	1600	190	.12	30	.02
WBL	1	1600	10	.01*	10	.01
WBT	3	4800	680	.14	800	.17*
WBR	d	1600	130	.08	300	.19

TOTAL CAPACITY UTILIZATION **.28** **.30**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	230	.07*
NBT	2	3200	10	.01	140	.05
NBR	0	0	10		10	
SBL	2	3200	130	.04	130	.04
SBT	1	1600	100	.06*	30	.02*
SBR	2	3200	140	.04	130	.04
EBL	2	3200	100	.03	140	.04*
EBT	3	4800	900	.19*	740	.15
EBR	1	1600	190	.12	30	.02
WBL	1	1600	10	.01*	10	.01
WBT	3	4800	680	.14	800	.17*
WBR	d	1600	130	.08	300	.19

TOTAL CAPACITY UTILIZATION **.28** **.30**

35. Hermosa & Pico

2035 Cumulative w/o SR-241 Ext. (No Project)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3200	70	.02*	210	.07
NBT	2	3200	20	.01	200	.07*
NBR	0	0	0		10	
SBL	2	3200	320	.10	210	.07*
SBT	1	1600	210	.13*	20	.01
SBR	2	3200	580	.18	150	.05
EBL	2	3200	190	.06*	420	.13*
EBT	3	4800	970	.20	1020	.21
EBR	1	1600	190	.12	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1320	.28*	1200	.25*
WBR	d	1600	170	.11	440	.28

TOTAL CAPACITY UTILIZATION .49 .52

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3200	70	.02*	210	.07
NBT	2	3200	20	.01	200	.07*
NBR	0	0	0		10	
SBL	2	3200	320	.10	220	.07*
SBT	1	1600	210	.13*	20	.01
SBR	2	3200	580	.18	150	.05
EBL	2	3200	190	.06*	420	.13*
EBT	3	4800	970	.20	1030	.21
EBR	1	1600	190	.12	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1330	.28*	1210	.25*
WBR	d	1600	180	.11	440	.28

TOTAL CAPACITY UTILIZATION .49 .52

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3200	70	.02*	210	.07
NBT	2	3200	20	.01	200	.07*
NBR	0	0	0		10	
SBL	2	3200	320	.10	220	.07*
SBT	1	1600	210	.13*	20	.01
SBR	2	3200	580	.18	150	.05
EBL	2	3200	190	.06*	420	.13*
EBT	3	4800	970	.20	1030	.21
EBR	1	1600	190	.12	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1330	.28*	1210	.25*
WBR	d	1600	180	.11	440	.28

TOTAL CAPACITY UTILIZATION .49 .52

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3200	70	.02*	210	.07
NBT	2	3200	20	.01	200	.07*
NBR	0	0	0		10	
SBL	2	3200	320	.10	220	.07*
SBT	1	1600	210	.13*	20	.01
SBR	2	3200	580	.18	150	.05
EBL	2	3200	190	.06*	420	.13*
EBT	3	4800	970	.20	1030	.21
EBR	1	1600	190	.12	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1330	.28*	1210	.25*
WBR	d	1600	180	.11	440	.28

TOTAL CAPACITY UTILIZATION .49 .52

35. Hermosa & Pico

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	90	.03
NBT	2	3200	20	.01	230	.08*
NBR	0	0	10		10	
SBL	2	3200	470	.15	410	.13*
SBT	1	1600	310	.19*	20	.01
SBR	2	3200	770	.24	220	.07
EBL	2	3200	260	.08*	540	.17*
EBT	3	4800	920	.19	1000	.21
EBR	1	1600	80	.05	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1010	.21*	1010	.21*
WBR	d	1600	400	.25	590	.37
Right Turn Adjustment					WBR	.06*

TOTAL CAPACITY UTILIZATION **.50** **.65**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	90	.03
NBT	2	3200	20	.01	230	.08*
NBR	0	0	10		10	
SBL	2	3200	470	.15	410	.13*
SBT	1	1600	310	.19*	20	.01
SBR	2	3200	770	.24	220	.07
EBL	2	3200	260	.08*	540	.17*
EBT	3	4800	920	.19	1010	.21
EBR	1	1600	80	.05	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1020	.21*	1020	.21*
WBR	d	1600	400	.25	590	.37
Right Turn Adjustment					WBR	.06*

TOTAL CAPACITY UTILIZATION **.50** **.65**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	90	.03
NBT	2	3200	20	.01	230	.08*
NBR	0	0	10		10	
SBL	2	3200	470	.15	410	.13*
SBT	1	1600	310	.19*	20	.01
SBR	2	3200	770	.24	220	.07
EBL	2	3200	260	.08*	540	.17*
EBT	3	4800	920	.19	1010	.21
EBR	1	1600	80	.05	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1020	.21*	1020	.21*
WBR	d	1600	400	.25	590	.37
Right Turn Adjustment					WBR	.06*

TOTAL CAPACITY UTILIZATION **.50** **.65**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02*	90	.03
NBT	2	3200	20	.01	230	.08*
NBR	0	0	10		10	
SBL	2	3200	470	.15	410	.13*
SBT	1	1600	310	.19*	20	.01
SBR	2	3200	770	.24	220	.07
EBL	2	3200	260	.08*	540	.17*
EBT	3	4800	920	.19	1010	.21
EBR	1	1600	80	.05	60	.04
WBL	1	1600	10	.01	10	.01
WBT	3	4800	1020	.21*	1020	.21*
WBR	d	1600	400	.25	590	.37
Right Turn Adjustment					WBR	.06*

TOTAL CAPACITY UTILIZATION **.50** **.65**

36. Patrones SB & Chiquita Cyn

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	270	.16*	520	.31*
SBT	0	0	0		0	
SBR	1	1700	210	.12	660	.39
EBL	0	0	0		0	
EBT	1	1700	500	.29*	690	.41*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06	220	.13
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.77**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	270	.16*	540	.32*
SBT	0	0	0		0	
SBR	1	1700	220	.13	680	.40
EBL	0	0	0		0	
EBT	1	1700	520	.31*	700	.41*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06	220	.13
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.78**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	270	.16*	540	.32*
SBT	0	0	0		0	
SBR	1	1700	220	.13	690	.41
EBL	0	0	0		0	
EBT	1	1700	520	.31*	700	.41*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06	220	.13
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.78**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	270	.16*	550	.32*
SBT	0	0	0		0	
SBR	1	1700	220	.13	700	.41
EBL	0	0	0		0	
EBT	1	1700	530	.31*	700	.41*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06	220	.13
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.78**

36. Patrones SB & Chiquita Cyn

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	290	.17*	560	.33*
SBT	0	0	0		0	
SBR	1	1700	240	.14	690	.41
EBL	0	0	0		0	
EBT	1	1700	520	.31*	700	.41*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06	230	.14
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.79**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	290	.17*	580	.34*
SBT	0	0	0		0	
SBR	1	1700	250	.15	710	.42
EBL	0	0	0		0	
EBT	1	1700	540	.32*	710	.42*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06	230	.14
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.81**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	290	.17*	580	.34*
SBT	0	0	0		0	
SBR	1	1700	250	.15	720	.42
EBL	0	0	0		0	
EBT	1	1700	540	.32*	710	.42*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06	230	.14
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.81**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	290	.17*	590	.35*
SBT	0	0	0		0	
SBR	1	1700	250	.15	730	.43
EBL	0	0	0		0	
EBT	1	1700	550	.32*	710	.42*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06	230	.14
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.82**

36. Patrones SB & Chiquita Cyn

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	280	.16*	550	.32*
SBT	0	0	0		0	
SBR	1	1700	170	.10	600	.35
EBL	0	0	0		0	
EBT	1	1700	450	.26*	570	.34*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08	170	.10
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.71**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	290	.17*	560	.33*
SBT	0	0	0		0	
SBR	1	1700	170	.10	610	.36
EBL	0	0	0		0	
EBT	1	1700	470	.28*	580	.34*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08	170	.10
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	290	.17*	560	.33*
SBT	0	0	0		0	
SBR	1	1700	170	.10	610	.36
EBL	0	0	0		0	
EBT	1	1700	470	.28*	580	.34*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08	170	.10
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.72**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	290	.17*	570	.34*
SBT	0	0	0		0	
SBR	1	1700	170	.10	620	.36
EBL	0	0	0		0	
EBT	1	1700	480	.28*	580	.34*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08	170	.10
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.73**

37. Patrones NB & Grandeza

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	420	.25*	500	.29*
EBT	1	1700	350	.21	710	.42
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06*	220	.13*
WBR	1	1700	540	.32	270	.16
Right Turn Adjustment			WBR	.26*	WBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.50**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	440	.26*	510	.30*
EBT	1	1700	350	.21	730	.43
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06*	220	.13*
WBR	1	1700	560	.33	290	.17
Right Turn Adjustment			WBR	.27*	WBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.52**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	440	.26*	510	.30*
EBT	1	1700	350	.21	730	.43
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06*	220	.13*
WBR	1	1700	570	.34	290	.17
Right Turn Adjustment			WBR	.28*	WBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.52**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	450	.26*	510	.30
EBT	1	1700	350	.21	740	.44*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	110	.06*	220	.13
WBR	1	1700	580	.34	300	.18
Right Turn Adjustment			WBR	.28*	WBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.53**

37. Patrones NB & Grandeza

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	410	.24*	530	.31*
EBT	1	1700	390	.23	730	.43
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06*	230	.14*
WBR	1	1700	570	.34	280	.16
Right Turn Adjustment			WBR	.28*	WBR	.02*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.63** **.52**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	430	.25*	540	.32*
EBT	1	1700	390	.23	750	.44
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06*	230	.14*
WBR	1	1700	590	.35	300	.18
Right Turn Adjustment			WBR	.29*	WBR	.04*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.65** **.55**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	430	.25*	540	.32*
EBT	1	1700	390	.23	750	.44
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06*	230	.14*
WBR	1	1700	600	.35	300	.18
Right Turn Adjustment			WBR	.29*	WBR	.04*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.65** **.55**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	440	.26*	540	.32*
EBT	1	1700	390	.23	760	.45
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06*	230	.14*
WBR	1	1700	610	.36	310	.18
Right Turn Adjustment			WBR	.30*	WBR	.04*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.67** **.55**

37. Patrones NB & Grandeza

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	330	.19*	410	.24
EBT	1	1700	400	.24	720	.42*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08*	170	.10
WBR	1	1700	590	.35	330	.19
Right Turn Adjustment			WBR	.27*	WBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.48**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	350	.21*	420	.25
EBT	1	1700	410	.24	730	.43*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08*	170	.10
WBR	1	1700	610	.36	350	.21
Right Turn Adjustment			WBR	.28*	WBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.51**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	350	.21*	420	.25
EBT	1	1700	410	.24	730	.43*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08*	170	.10
WBR	1	1700	620	.36	350	.21
Right Turn Adjustment			WBR	.28*	WBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.51**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	360	.21*	420	.25
EBT	1	1700	410	.24	740	.44*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	140	.08*	170	.10
WBR	1	1700	630	.37	360	.21
Right Turn Adjustment			WBR	.29*	WBR	.02*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.63**		**.51**

38. Legado & Grandeza

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	330	.19*	320	.19*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	110	.06	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	200	.12	190	.11
EBL	1	1700	70	.04*	250	.15*
EBT	1	1700	200	.12	190	.11
EBR	1	1700	210	.12	390	.23
WBL	1	1700	10	.01	10	.01
WBT	1	1700	170	.10*	210	.12*
WBR	1	1700	60	.04	200	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.56**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	350	.21*	330	.19*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	110	.06	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	190	.11
EBL	1	1700	70	.04*	260	.15*
EBT	1	1700	200	.12	200	.12
EBR	1	1700	210	.12	410	.24
WBL	1	1700	10	.01	10	.01
WBT	1	1700	180	.11*	210	.12*
WBR	1	1700	60	.04	200	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.56**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	350	.21*	330	.19*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	120	.07	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	190	.11
EBL	1	1700	70	.04*	260	.15*
EBT	1	1700	200	.12	200	.12
EBR	1	1700	210	.12	410	.24
WBL	1	1700	10	.01	10	.01
WBT	1	1700	180	.11*	210	.12*
WBR	1	1700	60	.04	210	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.56**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	360	.21*	340	.20*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	120	.07	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	200	.12
EBL	1	1700	80	.05*	260	.15*
EBT	1	1700	200	.12	200	.12
EBR	1	1700	210	.12	420	.25
WBL	1	1700	10	.01	10	.01
WBT	1	1700	180	.11*	210	.12*
WBR	1	1700	60	.04	210	.12
Right Turn Adjustment			SBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.57**

38. Legado & Grandeza

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	340	.20*	320	.19*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	110	.06	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	200	.12	190	.11
EBL	1	1700	70	.04	250	.15*
EBT	1	1700	240	.14*	200	.12
EBR	1	1700	200	.12	400	.24
WBL	1	1700	10	.01*	10	.01
WBT	1	1700	180	.11	210	.12*
WBR	1	1700	60	.04	200	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.49** **.56**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	360	.21*	330	.19*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	110	.06	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	190	.11
EBL	1	1700	70	.04	260	.15*
EBT	1	1700	240	.14*	210	.12
EBR	1	1700	200	.12	420	.25
WBL	1	1700	10	.01*	10	.01
WBT	1	1700	190	.11	220	.13*
WBR	1	1700	60	.04	200	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.50** **.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	360	.21*	330	.19*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	120	.07	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	190	.11
EBL	1	1700	70	.04	260	.15*
EBT	1	1700	240	.14*	210	.12
EBR	1	1700	200	.12	420	.25
WBL	1	1700	10	.01*	10	.01
WBT	1	1700	190	.11	220	.13*
WBR	1	1700	60	.04	210	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.50** **.57**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	370	.22*	340	.20*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	120	.07	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	200	.12
EBL	1	1700	80	.05*	260	.15*
EBT	1	1700	240	.14	210	.12
EBR	1	1700	200	.12	430	.25
WBL	1	1700	10	.01	10	.01
WBT	1	1700	190	.11*	220	.13*
WBR	1	1700	60	.04	210	.12
Right Turn Adjustment			SBR	.03*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.51** **.58**

38. Legado & Grandeza

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	340	.20*	350	.21*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	110	.06	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	200	.12	190	.11
EBL	1	1700	70	.04*	250	.15*
EBT	1	1700	280	.16	210	.12
EBR	1	1700	180	.11	480	.28
WBL	1	1700	10	.01	10	.01
WBT	1	1700	230	.14*	280	.16*
WBR	1	1700	60	.04	200	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.62**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	360	.21*	360	.21*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	110	.06	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	190	.11
EBL	1	1700	70	.04*	260	.15*
EBT	1	1700	280	.16	220	.13
EBR	1	1700	180	.11	500	.29
WBL	1	1700	10	.01	10	.01
WBT	1	1700	240	.14*	290	.17*
WBR	1	1700	60	.04	200	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.63**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	360	.21*	360	.21*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	120	.07	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	190	.11
EBL	1	1700	70	.04*	260	.15*
EBT	1	1700	280	.16	220	.13
EBR	1	1700	180	.11	500	.29
WBL	1	1700	10	.01	10	.01
WBT	1	1700	240	.14*	290	.17*
WBR	1	1700	60	.04	210	.12
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.63**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	370	.22*	370	.22*
NBT	1	1700	50	.04	100	.06
NBR	0	0	10		10	
SBL	1	1700	120	.07	140	.08
SBT	1	1700	80	.05*	90	.05*
SBR	1	1700	210	.12	200	.12
EBL	1	1700	80	.05*	260	.15*
EBT	1	1700	280	.16	220	.13
EBR	1	1700	180	.11	510	.30
WBL	1	1700	10	.01	10	.01
WBT	1	1700	240	.14*	290	.17*
WBR	1	1700	60	.04	210	.12
Right Turn Adjustment			SBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.64**

39. Antonio & Cow Camp

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	400	.08*	300	.06*
NBR	f		890		1160	
SBL	2	3400	580	.17*	920	.27*
SBT	3	5100	830	.16	410	.08
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1180	.23*	1140	.22*
WBT	0	0	0		0	
WBR	2	3400	930	.27	880	.26
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.60**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	400	.08*	300	.06*
NBR	f		900		1190	
SBL	2	3400	590	.17*	960	.28*
SBT	3	5100	830	.16	410	.08
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1210	.24*	1160	.23*
WBT	0	0	0		0	
WBR	2	3400	970	.29	910	.27
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.62**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	400	.08*	300	.06*
NBR	f		900		1200	
SBL	2	3400	590	.17*	980	.29*
SBT	3	5100	830	.16	410	.08
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1220	.24*	1170	.23*
WBT	0	0	0		0	
WBR	2	3400	990	.29	920	.27
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.63**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	400	.08*	300	.06*
NBR	f		910		1220	
SBL	2	3400	600	.18*	1000	.29*
SBT	3	5100	830	.16	410	.08
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1240	.24*	1180	.23*
WBT	0	0	0		0	
WBR	2	3400	1010	.30	930	.27
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.63**

39. Antonio & Cow Camp

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	560	.11*	480	.09*
NBR	f		1110		1310	
SBL	2	3400	740	.22*	970	.29*
SBT	3	5100	1020	.20	680	.13
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1320	.26*	1310	.26*
WBT	0	0	0		0	
WBR	2	3400	1040	.31	1000	.29
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.69**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	560	.11*	480	.09*
NBR	f		1120		1340	
SBL	2	3400	750	.22*	1010	.30*
SBT	3	5100	1020	.20	680	.13
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1350	.26*	1330	.26*
WBT	0	0	0		0	
WBR	2	3400	1080	.32	1030	.30
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.70**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	560	.11*	480	.09*
NBR	f		1120		1350	
SBL	2	3400	750	.22*	1030	.30*
SBT	3	5100	1020	.20	680	.13
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1360	.27*	1340	.26*
WBT	0	0	0		0	
WBR	2	3400	1100	.32	1040	.31
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.70**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	560	.11*	480	.09*
NBR	f		1130		1370	
SBL	2	3400	760	.22*	1050	.31*
SBT	3	5100	1020	.20	680	.13
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1380	.27*	1350	.26*
WBT	0	0	0		0	
WBR	2	3400	1120	.33	1050	.31
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.65**		**.71**

39. Antonio & Cow Camp

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	300	.06*	230	.05*
NBR	f		710		1010	
SBL	2	3400	1420	.42*	1460	.43*
SBT	3	5100	750	.15	310	.06
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1030	.20*	1000	.20*
WBT	0	0	0		0	
WBR	2	3400	1510	.44	1430	.42
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.73**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	300	.06*	230	.05*
NBR	f		720		1040	
SBL	2	3400	1430	.42*	1500	.44*
SBT	3	5100	750	.15	310	.06
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1060	.21*	1020	.20*
WBT	0	0	0		0	
WBR	2	3400	1550	.46	1460	.43
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.74**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	300	.06*	230	.05*
NBR	f		720		1050	
SBL	2	3400	1430	.42*	1510	.44*
SBT	3	5100	750	.15	310	.06
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1070	.21*	1020	.20*
WBT	0	0	0		0	
WBR	2	3400	1570	.46	1470	.43
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.74**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	300	.06*	230	.05*
NBR	f		730		1060	
SBL	2	3400	1440	.42*	1530	.45*
SBT	3	5100	750	.15	310	.06
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	1080	.21*	1030	.20*
WBT	0	0	0		0	
WBR	2	3400	1590	.47	1480	.44
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.75**

40. Chiquita Canyon & Cow Camp

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	180	.11*	120	.07*
SBT	0	0	0		0	
SBR	2	3400	630	.19	590	.17
EBL	2	3400	390	.11*	720	.21*
EBT	3	5100	1080	.21	1370	.27
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1480	.29*	1400	.27*
WBR	1	1700	140	.08	190	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.60**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	190	.11*	130	.08*
SBT	0	0	0		0	
SBR	2	3400	660	.19	600	.18
EBL	2	3400	400	.12*	740	.22*
EBT	3	5100	1100	.22	1430	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1530	.30*	1440	.28*
WBR	1	1700	150	.09	200	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.63**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	190	.11*	130	.08*
SBT	0	0	0		0	
SBR	2	3400	670	.20	600	.18
EBL	2	3400	400	.12*	740	.22*
EBT	3	5100	1110	.22	1450	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1540	.30*	1450	.28*
WBR	1	1700	150	.09	200	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.63**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	190	.11*	130	.08*
SBT	0	0	0		0	
SBR	2	3400	680	.20	610	.18
EBL	2	3400	400	.12*	750	.22*
EBT	3	5100	1120	.22	1480	.29
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1570	.31*	1470	.29*
WBR	1	1700	150	.09	200	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.64**

40. Chiquita Canyon & Cow Camp

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	160	.09*	120	.07*
SBT	0	0	0		0	
SBR	2	3400	670	.20	620	.18
EBL	2	3400	390	.11*	740	.22*
EBT	3	5100	1460	.29	1530	.30
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1690	.33*	1680	.33*
WBR	1	1700	120	.07	170	.10
Right Turn Adjustment			SBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	170	.10*	130	.08*
SBT	0	0	0		0	
SBR	2	3400	700	.21	630	.19
EBL	2	3400	400	.12*	760	.22*
EBT	3	5100	1480	.29	1590	.31
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1740	.34*	1720	.34*
WBR	1	1700	130	.08	180	.11
Right Turn Adjustment			SBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.63**		**.69**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	170	.10*	130	.08*
SBT	0	0	0		0	
SBR	2	3400	710	.21	630	.19
EBL	2	3400	400	.12*	760	.22*
EBT	3	5100	1490	.29	1610	.32
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1750	.34*	1730	.34*
WBR	1	1700	130	.08	180	.11
Right Turn Adjustment			SBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.63**		**.69**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	170	.10*	130	.08*
SBT	0	0	0		0	
SBR	2	3400	720	.21	640	.19
EBL	2	3400	400	.12*	770	.23*
EBT	3	5100	1500	.29	1640	.32
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1780	.35*	1750	.34*
WBR	1	1700	130	.08	180	.11
Right Turn Adjustment			SBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.70**

40. Chiquita Canyon & Cow Camp

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	370	.22*	270	.16*
SBT	0	0	0		0	
SBR	2	3400	760	.22	720	.21
EBL	2	3400	500	.15*	800	.24*
EBT	3	5100	1640	.32	1670	.33
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1810	.35*	1750	.34*
WBR	1	1700	270	.16	390	.23
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.79**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	380	.22*	280	.16*
SBT	0	0	0		0	
SBR	2	3400	790	.23	730	.21
EBL	2	3400	510	.15*	810	.24*
EBT	3	5100	1660	.33	1730	.34
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1850	.36*	1780	.35*
WBR	1	1700	280	.16	400	.24
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.78**		**.80**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	380	.22*	280	.16*
SBT	0	0	0		0	
SBR	2	3400	800	.24	730	.21
EBL	2	3400	510	.15*	810	.24*
EBT	3	5100	1670	.33	1740	.34
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1870	.37*	1790	.35*
WBR	1	1700	280	.16	400	.24
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.80**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	390	.23*	290	.17*
SBT	0	0	0		0	
SBR	2	3400	810	.24	740	.22
EBL	2	3400	510	.15*	820	.24*
EBT	3	5100	1680	.33	1770	.35
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1890	.37*	1810	.35*
WBR	1	1700	280	.16	410	.24
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.80**		**.81**

41. Los Patrones & Cow Camp

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	860	.25*	540	.16*
SBT	0	0	0		0	
SBR	2	3400	240	.07	270	.08
EBL	2	3400	290	.09*	280	.08*
EBT	3	5100	970	.19	1210	.24
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1380	.27*	1320	.26*
WBR	1	1700	590	.35	620	.36
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.55**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	860	.25*	550	.16*
SBT	0	0	0		0	
SBR	2	3400	240	.07	280	.08
EBL	2	3400	300	.09*	280	.08*
EBT	3	5100	1000	.20	1280	.25
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1440	.28*	1360	.27*
WBR	1	1700	600	.35	620	.36
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.67**		**.56**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	860	.25*	550	.16*
SBT	0	0	0		0	
SBR	2	3400	240	.07	280	.08
EBL	2	3400	300	.09*	280	.08*
EBT	3	5100	1010	.20	1300	.25
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1460	.29*	1370	.27*
WBR	1	1700	600	.35	620	.36
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.56**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	860	.25*	550	.16*
SBT	0	0	0		0	
SBR	2	3400	240	.07	280	.08
EBL	2	3400	300	.09*	280	.08*
EBT	3	5100	1020	.20	1340	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1490	.29*	1390	.27*
WBR	1	1700	600	.35	620	.36
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.56**

41. Los Patrones & Cow Camp

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	950	.28*	630	.19*
SBT	0	0	0		0	
SBR	2	3400	300	.09	420	.12
EBL	2	3400	500	.15*	380	.11*
EBT	3	5100	1120	.22	1270	.25
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1500	.29*	1430	.28*
WBR	1	1700	580	.34	690	.41
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.77** **.63**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	950	.28*	640	.19*
SBT	0	0	0		0	
SBR	2	3400	300	.09	430	.13
EBL	2	3400	510	.15*	380	.11*
EBT	3	5100	1150	.23	1340	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1560	.31*	1470	.29*
WBR	1	1700	590	.35	690	.41
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.79** **.64**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	950	.28*	640	.19*
SBT	0	0	0		0	
SBR	2	3400	300	.09	430	.13
EBL	2	3400	510	.15*	380	.11*
EBT	3	5100	1160	.23	1360	.27
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1580	.31*	1480	.29*
WBR	1	1700	590	.35	690	.41
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.79** **.64**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	950	.28*	640	.19*
SBT	0	0	0		0	
SBR	2	3400	300	.09	430	.13
EBL	2	3400	510	.15*	380	.11*
EBT	3	5100	1170	.23	1400	.27
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	1610	.32*	1500	.29*
WBR	1	1700	590	.35	690	.41
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.80** **.64**

42. Legado & Cow Camp

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	440	.13*	270	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	10	.01
SBL	1	1700	140	.08	90	.05
SBT	2	3400	60	.02*	10	.00*
SBR	2	3400	770	.23	420	.12
EBL	2	3400	330	.10	720	.21*
EBT	3	5100	1230	.29*	780	.20
EBR	0	0	270		250	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	760	.16	1250	.29*
WBR	0	0	70		220	
Right Turn Adjustment			SBR	.10*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.60**		**.63**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	20	.01
SBL	1	1700	150	.09	100	.06
SBT	2	3400	60	.02*	10	.00*
SBR	2	3400	800	.24	440	.13
EBL	2	3400	340	.10	760	.22*
EBT	3	5100	1240	.30*	800	.21
EBR	0	0	280		260	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	800	.17	1270	.29*
WBR	0	0	70		220	
Right Turn Adjustment			SBR	.11*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.64**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	20	.01
SBL	1	1700	150	.09	100	.06
SBT	2	3400	60	.02*	10	.00*
SBR	2	3400	810	.24	450	.13
EBL	2	3400	340	.10	780	.23*
EBT	3	5100	1240	.30*	810	.21
EBR	0	0	280		260	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	810	.17	1270	.29*
WBR	0	0	70		220	
Right Turn Adjustment			SBR	.11*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.62**		**.65**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	20	.01
SBL	1	1700	160	.09	100	.06
SBT	2	3400	60	.02*	10	.00*
SBR	2	3400	830	.24	460	.14
EBL	2	3400	350	.10	800	.24*
EBT	3	5100	1250	.30*	820	.21
EBR	0	0	280		270	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	830	.18	1280	.29*
WBR	0	0	70		220	
Right Turn Adjustment			SBR	.12*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.66**

42. Legado & Cow Camp

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	270	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	20	.01
SBL	1	1700	120	.07	90	.05
SBT	2	3400	80	.02*	10	.00*
SBR	2	3400	770	.23	440	.13
EBL	2	3400	320	.09	750	.22*
EBT	3	5100	1440	.34*	900	.23
EBR	0	0	300		250	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	870	.18	1400	.32*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.08*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.63**		**.67**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	30	.02
SBL	1	1700	130	.08	100	.06
SBT	2	3400	80	.02*	10	.00*
SBR	2	3400	800	.24	460	.14
EBL	2	3400	330	.10	790	.23*
EBT	3	5100	1450	.35*	920	.23
EBR	0	0	310		260	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	910	.19	1420	.32*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.09*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.68**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	30	.02
SBL	1	1700	130	.08	100	.06
SBT	2	3400	80	.02*	10	.00*
SBR	2	3400	810	.24	470	.14
EBL	2	3400	330	.10	810	.24*
EBT	3	5100	1450	.35*	930	.23
EBR	0	0	310		260	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	920	.19	1420	.32*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.09*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.69**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	470	.14*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	30	.02
SBL	1	1700	140	.08	100	.06
SBT	2	3400	80	.02*	10	.00*
SBR	2	3400	830	.24	480	.14
EBL	2	3400	340	.10	830	.24*
EBT	3	5100	1460	.35*	940	.24
EBR	0	0	310		270	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	940	.20	1430	.32*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.10*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.67**		**.69**

42. Legado & Cow Camp

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	270	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	20	.01
SBL	1	1700	130	.08	90	.05
SBT	2	3400	70	.02*	10	.00*
SBR	2	3400	780	.23	500	.15
EBL	2	3400	340	.10	770	.23*
EBT	3	5100	1380	.33*	920	.23
EBR	0	0	280		250	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	860	.18	1360	.31*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.09*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.63**		**.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	30	.02
SBL	1	1700	140	.08	100	.06
SBT	2	3400	70	.02*	10	.00*
SBR	2	3400	810	.24	520	.15
EBL	2	3400	350	.10	810	.24*
EBT	3	5100	1390	.33*	940	.24
EBR	0	0	290		260	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	890	.19	1380	.31*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.11*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	460	.14*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	30	.02
SBL	1	1700	140	.08	100	.06
SBT	2	3400	70	.02*	10	.00*
SBR	2	3400	820	.24	530	.16
EBL	2	3400	350	.10	820	.24*
EBT	3	5100	1390	.33*	950	.24
EBR	0	0	290		260	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	900	.19	1380	.31*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.11*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.68**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	470	.14*	280	.08*
NBT	2	3400	10	.00	10	.00
NBR	1	1700	30	.02	30	.02
SBL	1	1700	150	.09	100	.06
SBT	2	3400	70	.02*	10	.00*
SBR	2	3400	840	.25	540	.16
EBL	2	3400	360	.11	840	.25*
EBT	3	5100	1400	.33*	960	.24
EBR	0	0	290		270	
WBL	1	1700	10	.01*	20	.01
WBT	3	5100	920	.19	1390	.31*
WBR	0	0	60		210	
Right Turn Adjustment			SBR	.12*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.67**		**.69**

43. Grandeza & Cow Camp

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	260	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	200	.12*	170	.10
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	60	.04	40	.02
EBL	2	3400	20	.01	70	.02*
EBT	2	3400	860	.25*	700	.21
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	730	.21	910	.27*
WBR	1	1700	70	.04	320	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.44**		**.50**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	260	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	210	.12*	170	.10
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	70	.04	40	.02
EBL	2	3400	20	.01	80	.02*
EBT	2	3400	870	.26*	710	.21
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	750	.22	920	.27*
WBR	1	1700	70	.04	330	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.50**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	260	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	210	.12*	170	.10
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	70	.04	40	.02
EBL	2	3400	20	.01	80	.02*
EBT	2	3400	870	.26*	710	.21
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	760	.22	920	.27*
WBR	1	1700	70	.04	330	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.50**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	260	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	210	.12*	170	.10
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	70	.04	40	.02
EBL	2	3400	20	.01	80	.02*
EBT	2	3400	870	.26*	720	.21
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	770	.23	930	.27*
WBR	1	1700	70	.04	330	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.50**

43. Grandeza & Cow Camp

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	220	.13*	180	.11
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	60	.04	30	.02
EBL	2	3400	20	.01	50	.01*
EBT	2	3400	1080	.32*	830	.24
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	830	.24	1060	.31*
WBR	1	1700	70	.04	320	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.53**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	230	.14*	180	.11
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	70	.04	30	.02
EBL	2	3400	20	.01	60	.02*
EBT	2	3400	1090	.32*	840	.25
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	850	.25	1070	.31*
WBR	1	1700	70	.04	330	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.54**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	230	.14*	180	.11
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	70	.04	30	.02
EBL	2	3400	20	.01	60	.02*
EBT	2	3400	1090	.32*	840	.25
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	860	.25	1070	.31*
WBR	1	1700	70	.04	330	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.54**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	230	.14*	180	.11
SBT	1	1700	50	.03	20	.01*
SBR	1	1700	70	.04	30	.02
EBL	2	3400	20	.01	60	.02*
EBT	2	3400	1090	.32*	850	.25
EBR	1	1700	290	.17	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	870	.26	1080	.32*
WBR	1	1700	70	.04	330	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.55**

43. Grandeza & Cow Camp

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	270	.16*	180	.11
SBT	1	1700	80	.05	20	.01*
SBR	1	1700	80	.05	50	.03
EBL	2	3400	30	.01	70	.02*
EBT	2	3400	1070	.31*	840	.25
EBR	1	1700	260	.15	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	810	.24	1030	.30*
WBR	1	1700	90	.05	360	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.53**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	280	.16*	180	.11
SBT	1	1700	80	.05	20	.01*
SBR	1	1700	90	.05	50	.03
EBL	2	3400	30	.01	80	.02*
EBT	2	3400	1080	.32*	850	.25
EBR	1	1700	260	.15	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	830	.24	1040	.31*
WBR	1	1700	90	.05	370	.22
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.54**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	280	.16*	180	.11
SBT	1	1700	80	.05	20	.01*
SBR	1	1700	90	.05	50	.03
EBL	2	3400	30	.01	80	.02*
EBT	2	3400	1080	.32*	850	.25
EBR	1	1700	260	.15	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	840	.25	1040	.31*
WBR	1	1700	90	.05	370	.22
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.54**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02	250	.15*
NBT	1	1700	10	.01*	70	.04
NBR	1	1700	10	.01	10	.01
SBL	1	1700	280	.16*	180	.11
SBT	1	1700	80	.05	20	.01*
SBR	1	1700	90	.05	50	.03
EBL	2	3400	30	.01	80	.02*
EBT	2	3400	1080	.32*	860	.25
EBR	1	1700	260	.15	60	.04
WBL	1	1700	10	.01*	10	.01
WBT	2	3400	850	.25	1050	.31*
WBR	1	1700	90	.05	370	.22
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.54**

44. Ortega & Cow Camp

Alternative Existing Baseline (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	50	.03	640	.20*
NBR	0	0	180	.11	50	
SBL	1	1700	120	.07	30	.02*
SBT	2	3400	570	.31*	90	.05
SBR	0	0	480		470	.28
EBL	2	3400	330	.10	570	.17*
EBT	2	3400	830	.25*	390	.12
EBR	0	0	10		10	
WBL	1	1700	30	.02*	170	.10
WBT	2	3400	260	.08	920	.30*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.64** **.74**

Alternative Existing Baseline (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	50	.03	640	.20*
NBR	0	0	180	.11	50	
SBL	1	1700	120	.07	30	.02*
SBT	2	3400	570	.31*	90	.05
SBR	0	0	480		470	.28
EBL	2	3400	330	.10	570	.17*
EBT	2	3400	830	.25*	410	.12
EBR	0	0	10		10	
WBL	1	1700	30	.02*	170	.10
WBT	2	3400	280	.09	930	.30*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.64** **.74**

Alternative Existing Baseline (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	50	.03	640	.20*
NBR	0	0	180	.11	50	
SBL	1	1700	120	.07	30	.02*
SBT	2	3400	570	.31*	90	.05
SBR	0	0	480		470	.28
EBL	2	3400	330	.10	570	.17*
EBT	2	3400	830	.25*	410	.12
EBR	0	0	10		10	
WBL	1	1700	30	.02*	170	.10
WBT	2	3400	280	.09	930	.30*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.64** **.74**

Alternative Existing Baseline (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	50	.03	640	.20*
NBR	0	0	180	.11	50	
SBL	1	1700	120	.07	30	.02*
SBT	2	3400	570	.31*	90	.05
SBR	0	0	480		470	.28
EBL	2	3400	330	.10	570	.17*
EBT	2	3400	830	.25*	410	.12
EBR	0	0	10		10	
WBL	1	1700	30	.02*	170	.10
WBT	2	3400	280	.09	930	.30*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.64** **.74**

44. Ortega & Cow Camp

2035 Cumulative w/o SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	90	.05	800	.25*
NBR	0	0	180	.11	50	
SBL	1	1700	80	.05	30	.02*
SBT	2	3400	680	.37*	150	.09
SBR	0	0	570		590	.35
EBL	2	3400	480	.14	720	.21*
EBT	2	3400	870	.26*	400	.12
EBR	0	0	10		10	
WBL	1	1700	40	.02*	170	.10
WBT	2	3400	260	.08	940	.31*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.71** **.84**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	90	.05	800	.25*
NBR	0	0	180	.11	50	
SBL	1	1700	80	.05	30	.02*
SBT	2	3400	680	.37*	150	.09
SBR	0	0	570		590	.35
EBL	2	3400	480	.14	720	.21*
EBT	2	3400	870	.26*	420	.13
EBR	0	0	10		10	
WBL	1	1700	40	.02*	170	.10
WBT	2	3400	280	.09	950	.31*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.71** **.84**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	90	.05	800	.25*
NBR	0	0	180	.11	50	
SBL	1	1700	80	.05	30	.02*
SBT	2	3400	680	.37*	150	.09
SBR	0	0	570		590	.35
EBL	2	3400	480	.14	720	.21*
EBT	2	3400	870	.26*	420	.13
EBR	0	0	10		10	
WBL	1	1700	40	.02*	170	.10
WBT	2	3400	280	.09	950	.31*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.71** **.84**

2035 Cumulative w/o SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	90	.05	800	.25*
NBR	0	0	180	.11	50	
SBL	1	1700	80	.05	30	.02*
SBT	2	3400	680	.37*	150	.09
SBR	0	0	570		590	.35
EBL	2	3400	480	.14	720	.21*
EBT	2	3400	870	.26*	420	.13
EBR	0	0	10		10	
WBL	1	1700	40	.02*	170	.10
WBT	2	3400	280	.09	950	.31*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.71** **.84**

44. Ortega & Cow Camp

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	80	.05	750	.24*
NBR	0	0	210	.12	60	
SBL	1	1700	90	.05	30	.02*
SBT	2	3400	610	.36*	120	.07
SBR	0	0	630	.37	630	.37
EBL	2	3400	490	.14	770	.23*
EBT	2	3400	830	.25*	390	.12
EBR	0	0	10		10	
WBL	1	1700	40	.02*	190	.11
WBT	2	3400	250	.08	930	.30*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.69** **.84**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	80	.05	750	.24*
NBR	0	0	210	.12	60	
SBL	1	1700	90	.05	30	.02*
SBT	2	3400	610	.36*	120	.07
SBR	0	0	630	.37	630	.37
EBL	2	3400	490	.14	770	.23*
EBT	2	3400	830	.25*	410	.12
EBR	0	0	10		10	
WBL	1	1700	40	.02*	190	.11
WBT	2	3400	270	.09	940	.31*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.69** **.85**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	80	.05	750	.24*
NBR	0	0	210	.12	60	
SBL	1	1700	90	.05	30	.02*
SBT	2	3400	610	.36*	120	.07
SBR	0	0	630	.37	630	.37
EBL	2	3400	490	.14	770	.23*
EBT	2	3400	830	.25*	410	.12
EBR	0	0	10		10	
WBL	1	1700	40	.02*	190	.11
WBT	2	3400	270	.09	940	.31*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.69** **.85**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	10	.01*	10	.01
NBT	2	3400	80	.05	750	.24*
NBR	0	0	210	.12	60	
SBL	1	1700	90	.05	30	.02*
SBT	2	3400	610	.36*	120	.07
SBR	0	0	630	.37	630	.37
EBL	2	3400	490	.14	770	.23*
EBT	2	3400	830	.25*	410	.12
EBR	0	0	10		10	
WBL	1	1700	40	.02*	190	.11
WBT	2	3400	270	.09	940	.31*
WBR	0	0	20		100	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.69** **.85**

45. Chiquita Canyon & A St

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	300	.18	690	.41*
NBR	1	1700	330	.19	310	.18
SBL	1	1700	40	.02	40	.02*
SBT	1	1700	500	.29*	600	.35
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	380	.22*	310	.18*
WBT	0	0	0		0	
WBR	1	1700	10	.01	40	.02
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.56** **.66**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	310	.18	700	.41*
NBR	1	1700	340	.20	320	.19
SBL	1	1700	50	.03	40	.02*
SBT	1	1700	510	.30*	610	.36
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	390	.23*	320	.19*
WBT	0	0	0		0	
WBR	1	1700	10	.01	50	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.58** **.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	310	.18	700	.41*
NBR	1	1700	340	.20	320	.19
SBL	1	1700	50	.03	40	.02*
SBT	1	1700	510	.30*	610	.36
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	390	.23*	320	.19*
WBT	0	0	0		0	
WBR	1	1700	10	.01	50	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.58** **.67**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	310	.18	710	.42*
NBR	1	1700	350	.21	320	.19
SBL	1	1700	50	.03	40	.02*
SBT	1	1700	520	.31*	610	.36
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	390	.23*	330	.19*
WBT	0	0	0		0	
WBR	1	1700	10	.01	50	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.59** **.68**

46. SR-241 SB Ramps & A St

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	300	.18	230	.14
EBL	0	0	0		0	
EBT	1	1700	190	.22*	190	.21*
EBR	0	0	180		160	
WBL	0	0	0		0	
WBT	1	1700	90	.05	120	.07
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.05*	SBR	.03*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.32**		**.29**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	310	.18	250	.15
EBL	0	0	0		0	
EBT	1	1700	210	.23*	200	.21*
EBR	0	0	180		160	
WBL	0	0	0		0	
WBT	1	1700	90	.05	120	.07
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.04*	SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.32**		**.30**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	310	.18	250	.15
EBL	0	0	0		0	
EBT	1	1700	210	.23*	200	.21*
EBR	0	0	180		160	
WBL	0	0	0		0	
WBT	1	1700	90	.05	120	.07
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.04*	SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.32**		**.30**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	1	1700	310	.18	260	.15
EBL	0	0	0		0	
EBT	1	1700	220	.24*	200	.21*
EBR	0	0	180		160	
WBL	0	0	0		0	
WBT	1	1700	90	.05	120	.07
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.04*	SBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.33**		**.30**

47. SR-241 NB Ramps & A St

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	90	.05*	120	.07*
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	190	.11*	190	.11*
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.21** **.23**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	90	.05*	120	.07*
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	210	.12*	200	.12*
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.22** **.24**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	90	.05*	120	.07*
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	210	.12*	200	.12*
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.22** **.24**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	90	.05*	120	.07*
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1700	220	.13*	200	.12*
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.23** **.24**

48. SR-241 SB Ramps & Avd Pico

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	50	.03*	240	.15*
SBT	0	0	0		0	
SBR	f		560		510	
EBL	0	0	0		0	
EBT	2	3200	990	.31*	1730	.54*
EBR	1	1600	210	.13	710	.44
WBL	1	1600	180	.11*	190	.12*
WBT	2	3200	1300	.41	740	.23
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .45 .81

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	50	.03*	250	.16*
SBT	0	0	0		0	
SBR	f		560		510	
EBL	0	0	0		0	
EBT	2	3200	990	.31*	1740	.54*
EBR	1	1600	210	.13	710	.44
WBL	1	1600	180	.11*	190	.12*
WBT	2	3200	1310	.41	750	.23
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .45 .82

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	50	.03*	250	.16*
SBT	0	0	0		0	
SBR	f		560		510	
EBL	0	0	0		0	
EBT	2	3200	990	.31*	1740	.54*
EBR	1	1600	210	.13	710	.44
WBL	1	1600	180	.11*	190	.12*
WBT	2	3200	1310	.41	750	.23
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .45 .82

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	50	.03*	250	.16*
SBT	0	0	0		0	
SBR	f		560		510	
EBL	0	0	0		0	
EBT	2	3200	990	.31*	1740	.54*
EBR	1	1600	210	.13	710	.44
WBL	1	1600	180	.11*	190	.12*
WBT	2	3200	1310	.41	750	.23
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .45 .82

49. SR-241 NB Ramps & Avd Pico

2035 Cumulative w/SR-241 Ext. (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	440	.28*	200	.13*
NBT	0	0	0		0	
NBR	1	1600	110	.07	280	.18
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	510	.16	1110	.35*
EBR	f		530		850	
WBL	1	1600	220	.14	70	.04*
WBT	2	3200	1040	.33*	730	.23
WBR	0	0	0		0	
Right Turn Adjustment					NBR	.02*
TOTAL CAPACITY UTILIZATION				**.61**		**.54**

2035 Cumulative w/SR-241 Ext. (Project Alt. 1)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	440	.28*	200	.13*
NBT	0	0	0		0	
NBR	1	1600	110	.07	280	.18
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	510	.16	1120	.35*
EBR	f		530		850	
WBL	1	1600	230	.14	70	.04*
WBT	2	3200	1050	.33*	740	.23
WBR	0	0	0		0	
Right Turn Adjustment					NBR	.02*
TOTAL CAPACITY UTILIZATION				**.61**		**.54**

2035 Cumulative w/SR-241 Ext. (Project Alt. 2)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	440	.28*	200	.13*
NBT	0	0	0		0	
NBR	1	1600	110	.07	280	.18
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	510	.16	1120	.35*
EBR	f		530		850	
WBL	1	1600	230	.14	70	.04*
WBT	2	3200	1050	.33*	740	.23
WBR	0	0	0		0	
Right Turn Adjustment					NBR	.02*
TOTAL CAPACITY UTILIZATION				**.61**		**.54**

2035 Cumulative w/SR-241 Ext. (Project Alt. 3)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	440	.28*	200	.13*
NBT	0	0	0		0	
NBR	1	1600	110	.07	280	.18
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	510	.16	1130	.35*
EBR	f		530		850	
WBL	1	1600	230	.14	70	.04*
WBT	2	3200	1050	.33*	740	.23
WBR	0	0	0		0	
Right Turn Adjustment					NBR	.02*
TOTAL CAPACITY UTILIZATION				**.61**		**.54**

Appendix B HCM Signalized Intersection Analysis Worksheets

This appendix summarizes the Highway Capacity Manual (HCM) signalized intersection analysis worksheets applied in the traffic study for the Orange County Affordable Housing Implementation Program. Analysis based on the HCM signalized intersection methodology was conducted in addition to the intersection capacity utilization (ICU) methodology for the City of San Juan Capistrano and Caltrans intersections in the traffic analysis study area. AM and PM peak hour HCM analysis worksheets for the scenarios analyzed in this traffic study are presented in this appendix in the following order:

HCM Signalized Intersection Analysis Data Sets

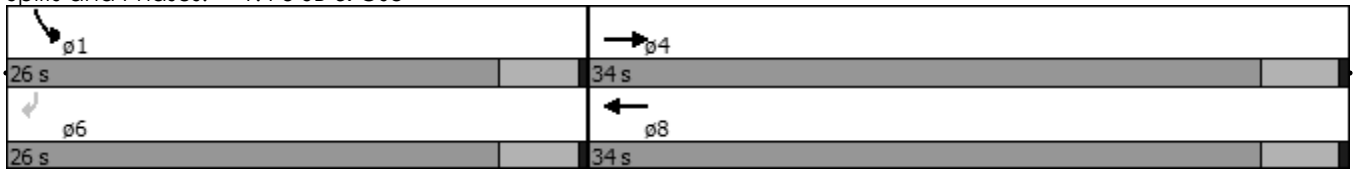
HCM Signalized Intersection Data Set 1 Existing

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1020	420	0	1510	700	0	0	0	580	0	290
Future Volume (vph)	0	1020	420	0	1510	700	0	0	0	580	0	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			442			737						25
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1074	442	0	1589	737	0	0	0	611	0	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		34.0			34.0					26.0		26.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		26.2	56.3		26.2	56.3				22.1		22.1
Actuated g/C Ratio		0.47	1.00		0.47	1.00				0.39		0.39
v/c Ratio		0.45	0.29		0.67	0.47				0.45		0.28
Control Delay		10.7	0.5		13.2	1.0				14.8		12.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		10.7	0.5		13.2	1.0				14.8		12.4
LOS		B	A		B	A				B		B
Approach Delay		7.8			9.3							
Approach LOS		A			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 52.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

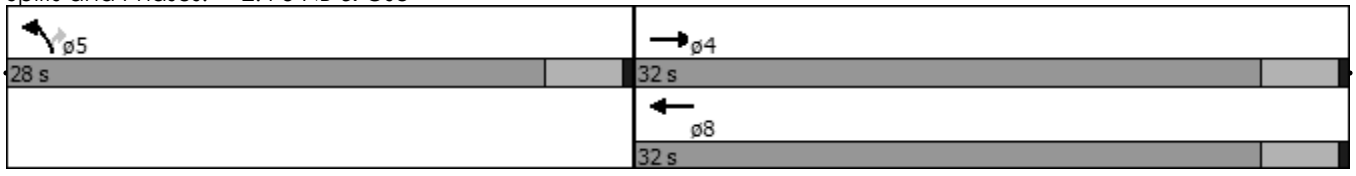


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1080	520	0	1850	1230	360	0	420	0	0	0
Future Volume (vph)	0	1080	520	0	1850	1230	360	0	420	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			547			1091			36			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1137	547	0	1947	1295	379	0	442	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		32.0			32.0		28.0		28.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		26.9	53.6		26.9	53.6	18.5		18.5			
Actuated g/C Ratio		0.50	1.00		0.50	1.00	0.35		0.35			
v/c Ratio		0.45	0.36		0.76	0.82	0.32		0.78			
Control Delay		10.0	0.6		14.2	5.5	13.5		24.7			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		10.0	0.6		14.2	5.5	13.5		24.7			
LOS		A	A		B	A	B		C			
Approach Delay		6.9			10.7							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 53.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

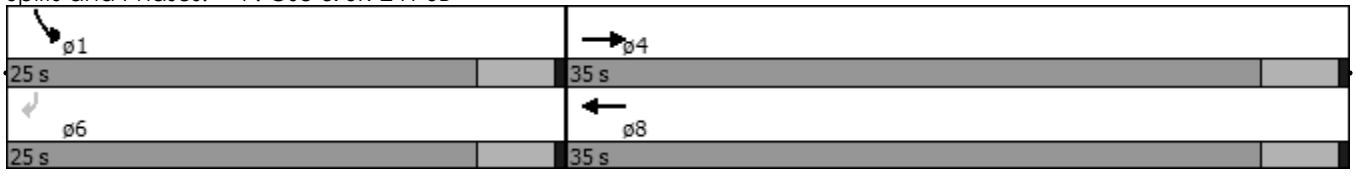


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰	↱
Traffic Volume (vph)	0	950	1180	0	50	190
Future Volume (vph)	0	950	1180	0	50	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	2	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	5085	5085	0	3433	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	5085	5085	0	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						39
Link Speed (mph)		50	50		45	
Link Distance (ft)		853	755		1178	
Travel Time (s)		11.6	10.3		17.8	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1000	1242	0	53	200
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		35.0	35.0		25.0	25.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		20.5	20.5		11.4	21.2
Actuated g/C Ratio		0.41	0.41		0.23	0.43
v/c Ratio		0.48	0.59		0.07	0.29
Control Delay		11.2	12.4		13.1	10.2
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		11.2	12.4		13.1	10.2
LOS		B	B		B	B
Approach Delay		11.2	12.4		10.8	
Approach LOS		B	B		B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 49.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 11.8 Intersection LOS: B
Intersection Capacity Utilization 48.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Oso & SR-241 SB

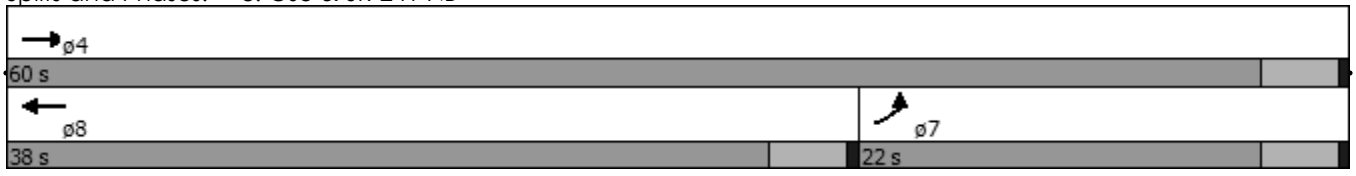


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	430	570	1180	280	0	0
Future Volume (vph)	430	570	1180	280	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275			0	0	0
Storage Lanes	1			0	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	3539	4906	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	3433	3539	4906	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			124			
Link Speed (mph)		50	50		25	
Link Distance (ft)		755	986		982	
Travel Time (s)		10.3	13.4		26.8	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	453	600	1537	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		24	24		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						
Total Split (s)	22.0	60.0	38.0			
Total Lost Time (s)	4.0	4.0	4.0			
Act Effct Green (s)	11.3	43.0	23.3			
Actuated g/C Ratio	0.26	1.00	0.54			
v/c Ratio	0.50	0.17	0.57			
Control Delay	16.8	0.1	6.8			
Queue Delay	0.0	0.0	0.0			
Total Delay	16.8	0.1	6.8			
LOS	B	A	A			
Approach Delay		7.3	6.8			
Approach LOS		A	A			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 43
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 7.0 Intersection LOS: A
Intersection Capacity Utilization 48.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Oso & SR-241 NB

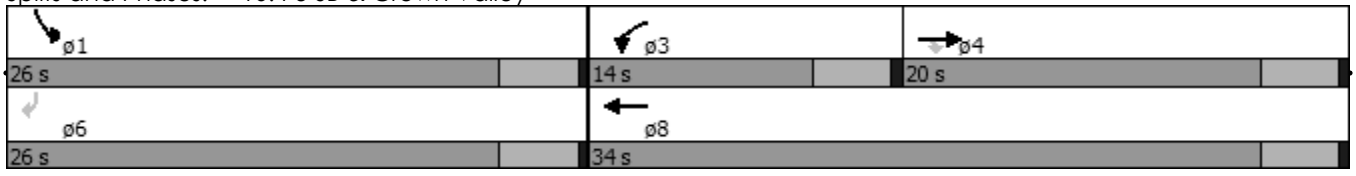


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1410	180	390	1230	0	0	0	0	1160	0	770
Future Volume (vph)	0	1410	180	390	1230	0	0	0	0	1160	0	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			189									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	189	411	1295	0	0	0	0	1221	0	811
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.8	29.8					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.16	0.50					0.37		0.37
v/c Ratio		0.74	0.35	0.73	0.51					0.67		0.75
Control Delay		22.6	5.3	32.8	11.0					18.0		19.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		22.6	5.3	32.8	11.0					18.0		19.9
LOS		C	A	C	B					B		B
Approach Delay		20.7			16.2							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 18.6 Intersection LOS: B
Intersection Capacity Utilization 59.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

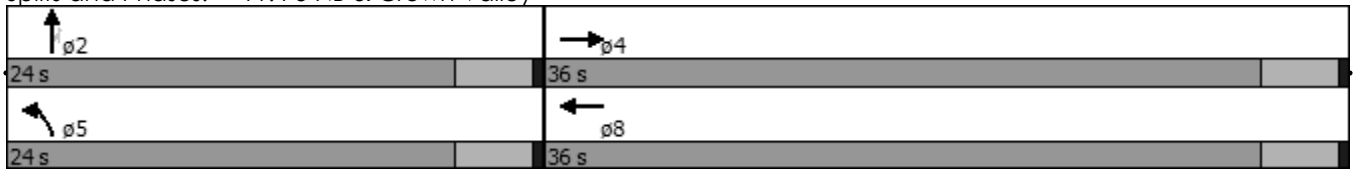


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2010	560	0	1400	1100	220	0	500	0	0	0
Future Volume (vph)	0	2010	560	0	1400	1100	220	0	500	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5977	1283	0	4609	1362	1681	1457	1504	0	0	0
Flt Permitted							0.950	0.996				
Satd. Flow (perm)	0	5977	1260	0	4609	1362	1681	1457	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25	477		243	602		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			19%			48%	10%		48%			
Lane Group Flow (vph)	0	2228	477	0	2030	602	209	275	274	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		36.0			36.0		24.0	24.0	24.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.8	59.8		31.8	59.8	20.0	20.0	20.0			
Actuated g/C Ratio		0.53	1.00		0.53	1.00	0.33	0.33	0.33			
v/c Ratio		0.70	0.38		0.79	0.44	0.37	0.55	0.53			
Control Delay		11.8	0.9		12.7	1.0	17.6	20.2	19.7			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		11.8	0.9		12.7	1.0	17.6	20.2	19.7			
LOS		B	A		B	A	B	C	B			
Approach Delay		9.8			10.0			19.3				
Approach LOS		A			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

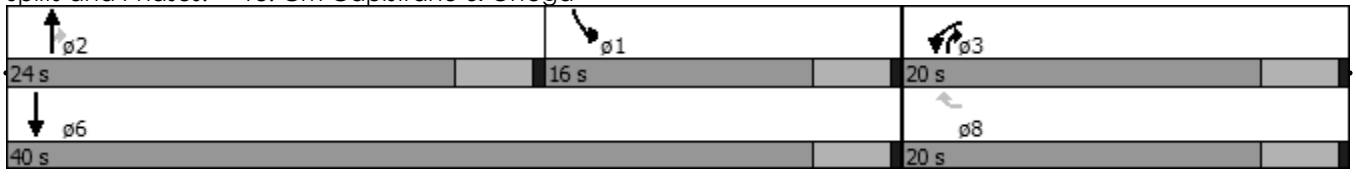


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	140	190	360	100	170	470
Future Volume (vph)	140	190	360	100	170	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		200		105		
Link Speed (mph)	25		25			25
Link Distance (ft)	823		491			452
Travel Time (s)	22.4		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	200	379	105	179	495
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	24.0	20.0	16.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.1	9.9	23.6	33.7	10.9	36.1
Actuated g/C Ratio	0.19	0.18	0.44	0.62	0.20	0.67
v/c Ratio	0.45	0.46	0.47	0.10	0.50	0.40
Control Delay	23.7	7.1	16.2	1.3	25.1	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	7.1	16.2	1.3	25.1	5.9
LOS	C	A	B	A	C	A
Approach Delay	14.2		13.0			11.0
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 48.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

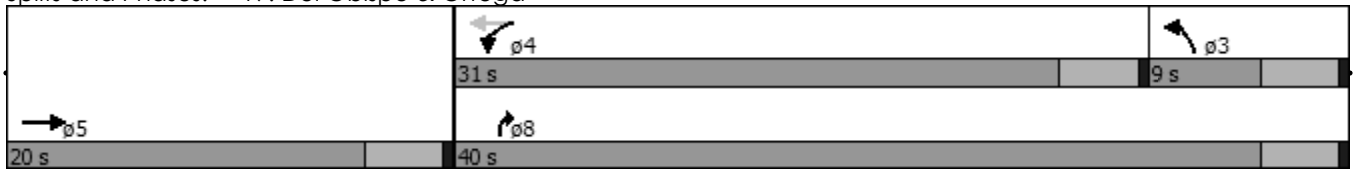


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	380	40	830	530	30	880
Future Volume (vph)	380	40	830	530	30	880
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	150		150	0
Storage Lanes		0	2		1	2
Taper Length (ft)			25		25	
Satd. Flow (prot)	5014	0	3433	1863	1770	2787
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	5014	0	3433	1863	1770	2787
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	29					267
Link Speed (mph)	25			35	35	
Link Distance (ft)	823			327	920	
Travel Time (s)	22.4			6.4	17.9	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	442	0	874	558	32	926
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA		Prot	NA	Prot	Prot
Protected Phases	5		4		3	8
Permitted Phases				4		
Total Split (s)	20.0		31.0	31.0	9.0	40.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Act Effct Green (s)	10.4		27.0	27.0	5.0	36.1
Actuated g/C Ratio	0.19		0.50	0.50	0.09	0.66
v/c Ratio	0.45		0.51	0.60	0.20	0.48
Control Delay	19.5		11.0	13.9	27.1	4.3
Queue Delay	0.0		0.4	1.8	0.0	0.0
Total Delay	19.5		11.4	15.7	27.1	4.3
LOS	B		B	B	C	A
Approach Delay	19.5			13.1	5.1	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 11.4 Intersection LOS: B
Intersection Capacity Utilization 46.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

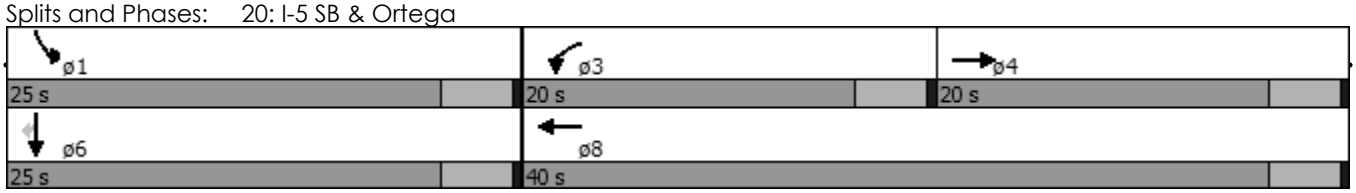


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1130	140	400	720	0	0	0	0	710	0	650
Future Volume (vph)	0	1130	140	400	720	0	0	0	0	710	0	650
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5493	0	1752	3725	0	0	0	0	1752	1526	1583
Flt Permitted				0.950						0.950	0.974	
Satd. Flow (perm)	0	5493	0	1752	3725	0	0	0	0	1752	1526	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36									84	181
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		327			407			806			782	
Travel Time (s)		5.6			6.9			12.2			11.8	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)										34%		33%
Lane Group Flow (vph)	0	1336	0	421	758	0	0	0	0	493	480	458
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases												6
Total Split (s)		20.0		20.0	40.0					25.0	25.0	25.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.0		16.0	36.0					21.0	21.0	21.0
Actuated g/C Ratio		0.25		0.25	0.55					0.32	0.32	0.32
v/c Ratio		0.97		0.98	0.37					0.87	0.87	0.72
Control Delay		43.3		66.1	8.8					39.8	37.0	19.5
Queue Delay		0.0		0.0	0.0					0.0	0.0	0.0
Total Delay		43.3		66.1	8.8					39.8	37.0	19.5
LOS		D		E	A					D	D	B
Approach Delay		43.3			29.2						32.4	
Approach LOS		D			C						C	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 35.1 Intersection LOS: D
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

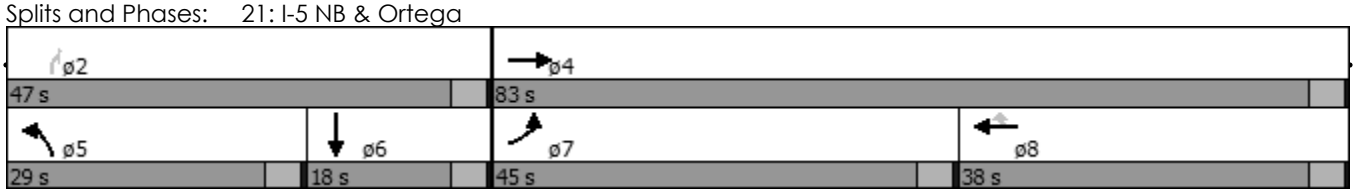


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	690	1150	0	0	910	890	210	0	680	0	0	0
Future Volume (vph)	690	1150	0	0	910	890	210	0	680	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3689	0	0	3689	1583	1770	0	1583	0	1863	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3689	0	0	3689	1583	1770	0	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						553			77			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	726	1211	0	0	958	937	221	0	716	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5				6	
Permitted Phases						8			2			
Total Split (s)	45.0	83.0			38.0	38.0	29.0		47.0		18.0	
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0		4.0	
Act Effct Green (s)	41.0	79.0			34.0	34.0	20.7		43.0			
Actuated g/C Ratio	0.32	0.61			0.26	0.26	0.16		0.33			
v/c Ratio	1.30	0.54			0.99	1.14	0.79		1.25			
Control Delay	185.2	16.0			75.4	96.0	71.7		158.2			
Queue Delay	5.6	50.4			0.0	0.0	0.0		0.0			
Total Delay	190.8	66.4			75.4	96.0	71.7		158.2			
LOS	F	E			E	F	E		F			
Approach Delay		113.0			85.6							
Approach LOS		F			F							

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.30
Intersection Signal Delay: 107.0 Intersection LOS: F
Intersection Capacity Utilization 100.0% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

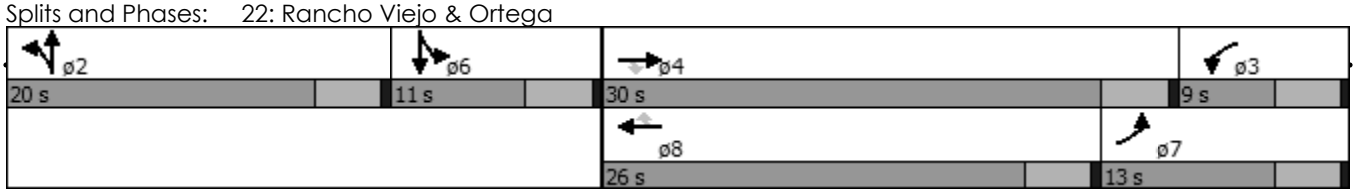


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	1150	490	60	1370	340	290	150	30	150	130	110
Future Volume (vph)	170	1150	490	60	1370	340	290	150	30	150	130	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1805	0	1770	3477	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1770	3654	1524	1770	5481	1583	3539	1805	0	1770	3477	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			516			358		14			116	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										12%		
Lane Group Flow (vph)	179	1211	516	63	1442	358	305	190	0	139	272	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	13.0	30.0	30.0	9.0	26.0	26.0	20.0	20.0		11.0	11.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	8.9	29.5	29.5	5.0	22.0	22.0	16.0	16.0		7.0	7.0	
Actuated g/C Ratio	0.13	0.42	0.42	0.07	0.31	0.31	0.23	0.23		0.10	0.10	
v/c Ratio	0.80	0.78	0.55	0.50	0.84	0.48	0.38	0.45		0.79	0.60	
Control Delay	56.8	23.6	4.2	46.1	27.8	4.8	24.4	25.4		62.7	23.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	56.8	23.6	4.2	46.1	27.8	4.8	24.4	25.4		62.7	23.2	
LOS	E	C	A	D	C	A	C	C		E	C	
Approach Delay		21.5			24.0			24.8			36.6	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 69.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 24.2		Intersection LOS: C	
Intersection Capacity Utilization 70.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 22: Rancho Viejo & Ortega

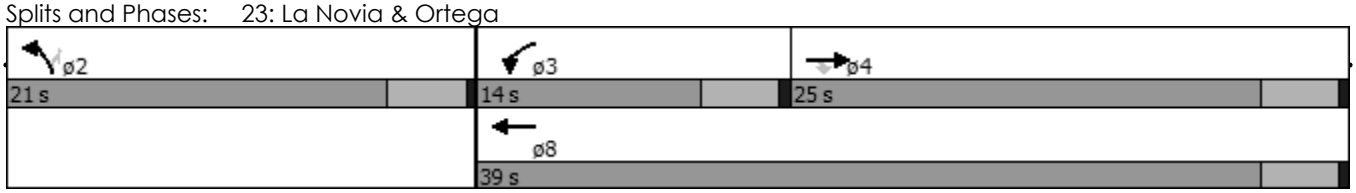


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	940	270	190	1500	310	190
Future Volume (vph)	940	270	190	1500	310	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1493	1770	3471	3433	1529
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		284				200
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	989	284	200	1579	326	200
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	25.0	25.0	14.0	39.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	20.3	20.3	9.5	33.8	17.0	17.0
Actuated g/C Ratio	0.35	0.35	0.16	0.57	0.29	0.29
v/c Ratio	0.83	0.41	0.70	0.79	0.33	0.34
Control Delay	25.3	4.1	38.9	13.4	17.9	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	4.1	38.9	13.4	17.9	5.0
LOS	C	A	D	B	B	A
Approach Delay	20.6			16.3	13.0	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 17.3 Intersection LOS: B
Intersection Capacity Utilization 61.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

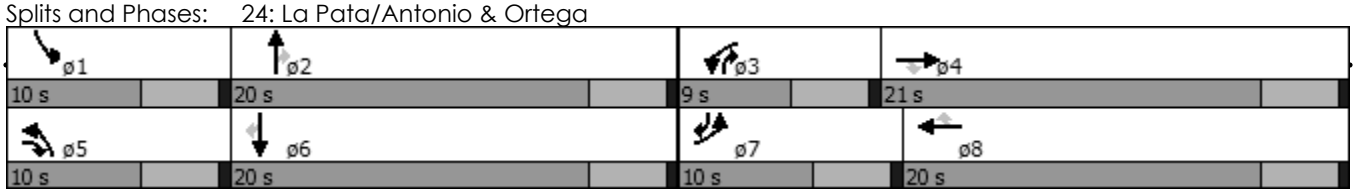


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	200	530	20	710	280	370	290	10	90	440	400
Future Volume (vph)	330	200	530	20	710	280	370	290	10	90	440	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1529	1770	3654	1529	3539	5588	1529	1770	5588	2987
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169			295			91			91
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	211	558	21	747	295	389	305	11	95	463	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	21.0	10.0	9.0	20.0	20.0	10.0	20.0	9.0	10.0	20.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	21.9	27.9	5.0	15.5	15.5	6.0	18.1	23.1	5.9	16.0	22.0
Actuated g/C Ratio	0.10	0.37	0.47	0.08	0.26	0.26	0.10	0.30	0.39	0.10	0.27	0.37
v/c Ratio	0.97	0.16	0.69	0.14	0.78	0.48	1.09	0.18	0.02	0.54	0.31	0.36
Control Delay	73.1	14.4	14.2	27.9	27.6	5.6	105.3	16.8	0.0	38.7	18.2	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.1	14.4	14.2	27.9	27.6	5.6	105.3	16.8	0.0	38.7	18.2	9.6
LOS	E	B	B	C	C	A	F	B	A	D	B	A
Approach Delay		32.6			21.5			65.4			16.5	
Approach LOS		C			C			E			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

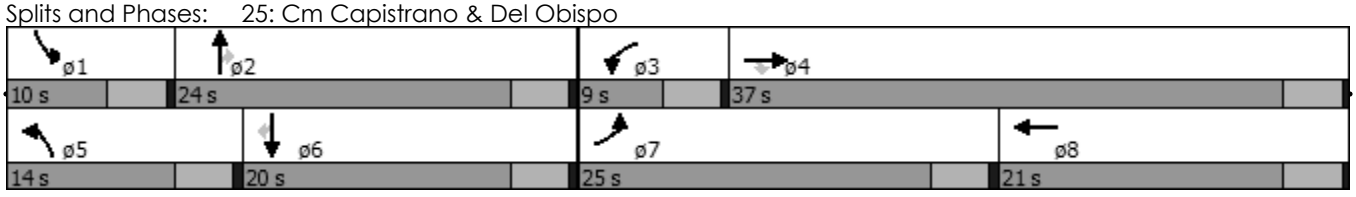


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	350	730	270	100	620	10	330	220	60	40	190	350
Future Volume (vph)	350	730	270	100	620	10	330	220	60	40	190	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3528	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3528	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284		2				177			368
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	368	768	284	105	664	0	347	232	63	42	200	368
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	25.0	37.0	37.0	9.0	21.0		14.0	24.0	24.0	10.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.1	32.7	32.7	5.0	16.6		10.0	24.2	24.2	5.9	16.0	16.0
Actuated g/C Ratio	0.25	0.42	0.42	0.06	0.21		0.13	0.31	0.31	0.08	0.21	0.21
v/c Ratio	0.85	0.52	0.35	0.48	0.88		0.79	0.40	0.11	0.31	0.52	0.61
Control Delay	47.2	18.7	3.4	43.6	45.0		48.2	26.2	0.4	41.6	33.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	18.7	3.4	43.6	45.0		48.2	26.2	0.4	41.6	33.8	8.2
LOS	D	B	A	D	D		D	C	A	D	C	A
Approach Delay		23.0			44.8			35.5			18.9	
Approach LOS		C			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 77.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 73.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 25: Cm Capistrano & Del Obispo

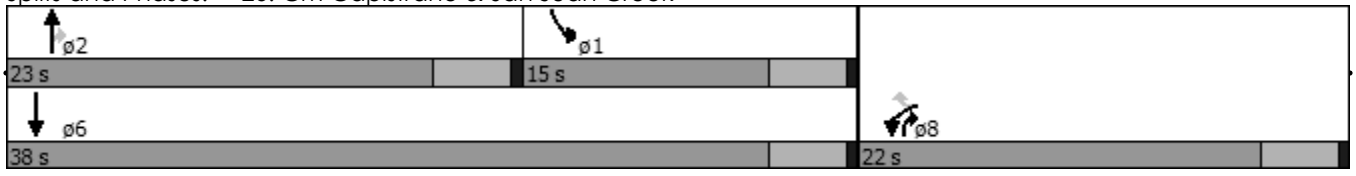


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	410	470	310	310	260	440
Future Volume (vph)	410	470	310	310	260	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3266	1441	3539	1583	3433	3539
Flt Permitted	0.967				0.950	
Satd. Flow (perm)	3266	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	140	292		113		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		41%				
Lane Group Flow (vph)	635	292	326	326	274	463
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.6	14.6	19.1	33.7	11.0	34.1
Actuated g/C Ratio	0.26	0.26	0.34	0.59	0.19	0.60
v/c Ratio	0.67	0.51	0.27	0.34	0.41	0.22
Control Delay	18.3	6.0	15.3	3.5	23.0	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	6.0	15.3	3.5	23.0	6.0
LOS	B	A	B	A	C	A
Approach Delay	14.4		9.4			12.3
Approach LOS	B		A			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 47.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

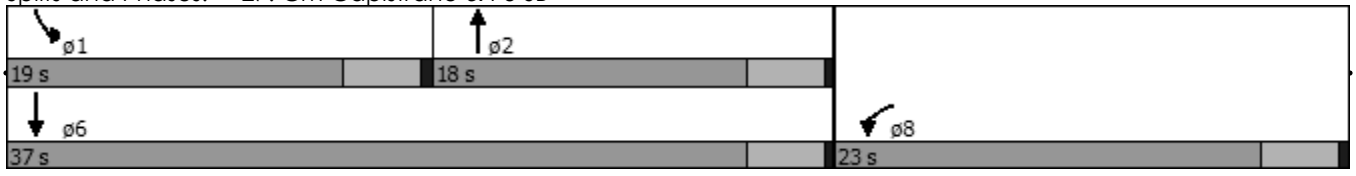


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	600	260	360	20	420	430
Future Volume (vph)	600	260	360	20	420	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		274		21		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	632	274	379	21	442	453
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	23.0		18.0		19.0	37.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	15.1	56.2	17.0	56.2	12.1	33.1
Actuated g/C Ratio	0.27	1.00	0.30	1.00	0.22	0.59
v/c Ratio	0.69	0.17	0.35	0.01	0.60	0.22
Control Delay	22.6	0.2	18.0	0.0	23.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	0.2	18.0	0.0	23.6	6.2
LOS	C	A	B	A	C	A
Approach Delay	15.8		17.0			14.8
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 49.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

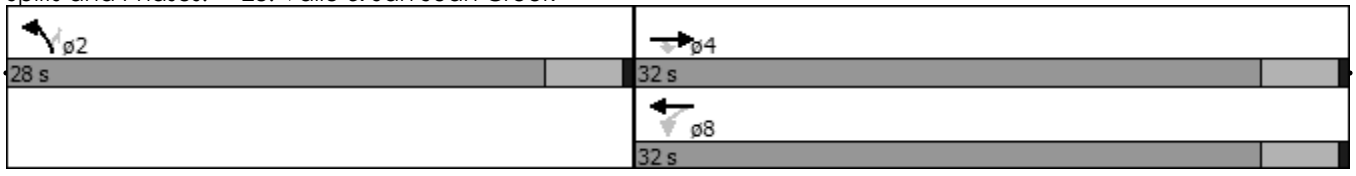


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	330	240	140	540	340	110
Future Volume (vph)	330	240	140	540	340	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3504	1770	1583
Flt Permitted				0.730	0.950	
Satd. Flow (perm)	1863	1493	0	2584	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		253				116
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	347	253	0	715	358	116
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	19.3	19.3		19.3	24.2	24.2
Actuated g/C Ratio	0.37	0.37		0.37	0.47	0.47
v/c Ratio	0.50	0.35		0.74	0.43	0.14
Control Delay	14.7	3.2		18.9	12.7	3.3
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	14.7	3.2		18.9	12.7	3.3
LOS	B	A		B	B	A
Approach Delay	9.8			18.9	10.4	
Approach LOS	A			B	B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 51.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek



Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	320	40	50	0	10	170	70	0	40	60	10
Future Vol, veh/h	0	320	40	50	0	10	170	70	0	40	60	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	337	42	53	0	11	179	74	0	42	63	11
Number of Lanes	0	0	1	1	0	0	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	25.3	12.8	11.6
HCM LOS	D	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	89%	0%	6%	0%	11%	0%
Vol Thru, %	0%	86%	11%	0%	94%	0%	89%	0%
Vol Right, %	0%	14%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	70	360	50	180	70	190	190
LT Vol	40	0	320	0	10	0	20	0
Through Vol	0	60	40	0	170	0	170	0
RT Vol	0	10	0	50	0	70	0	190
Lane Flow Rate	42	74	379	53	189	74	200	200
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.095	0.154	0.74	0.086	0.372	0.129	0.394	0.352
Departure Headway (Hd)	8.142	7.525	7.155	5.989	7.061	6.316	7.099	6.331
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	442	478	508	602	512	569	508	570
Service Time	5.866	5.249	4.855	3.689	4.786	4.041	4.816	4.047
HCM Lane V/C Ratio	0.095	0.155	0.746	0.088	0.369	0.13	0.394	0.351
HCM Control Delay	11.7	11.6	27.5	9.3	13.9	10	14.4	12.5
HCM Lane LOS	B	B	D	A	B	A	B	B
HCM 95th-tile Q	0.3	0.5	6.2	0.3	1.7	0.4	1.9	1.6

Intersection

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	20	170	190
Future Vol, veh/h	0	20	170	190
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	179	200
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.5
HCM LOS	B

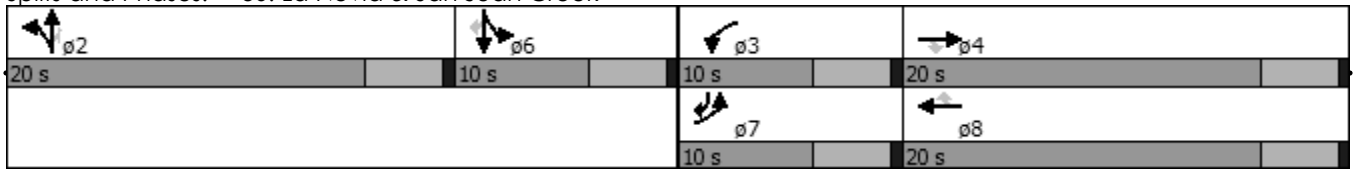
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	130	80	50	220	270	120	180	40	150	150	310
Future Volume (vph)	170	130	80	50	220	270	120	180	40	150	150	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			284			164			326
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	137	84	53	232	284	126	189	42	158	158	326
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.3	16.3	5.9	12.1	12.1	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.10	0.22	0.22	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.95	0.25	0.15	0.28	0.58	0.52	0.25	0.36	0.08	0.84	0.79	0.48
Control Delay	85.4	18.5	0.9	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	18.5	0.9	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
LOS	F	B	A	C	C	A	B	B	A	E	E	A
Approach Delay		44.8			16.5			16.7			32.7	
Approach LOS		D			B			B			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

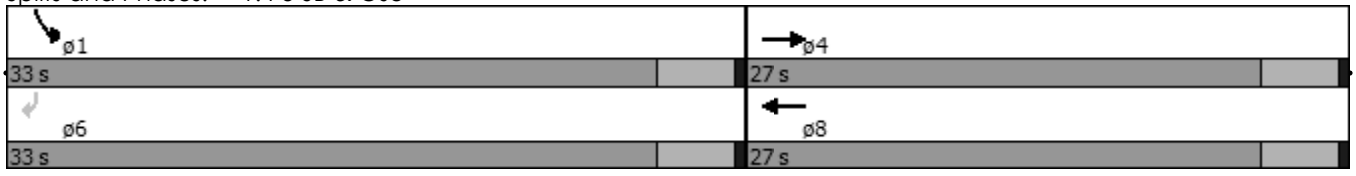


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1480	450	0	1220	510	0	0	0	1180	0	380
Future Volume (vph)	0	1480	450	0	1220	510	0	0	0	1180	0	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			474			537						19
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1558	474	0	1284	537	0	0	0	1242	0	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		27.0			27.0					33.0		33.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		22.6	59.6		22.6	59.6				29.0		29.0
Actuated g/C Ratio		0.38	1.00		0.38	1.00				0.49		0.49
v/c Ratio		0.81	0.31		0.67	0.34				0.74		0.29
Control Delay		20.6	0.5		17.4	0.6				15.9		9.5
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		20.6	0.5		17.4	0.6				15.9		9.5
LOS		C	A		B	A				B		A
Approach Delay		15.9			12.4							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

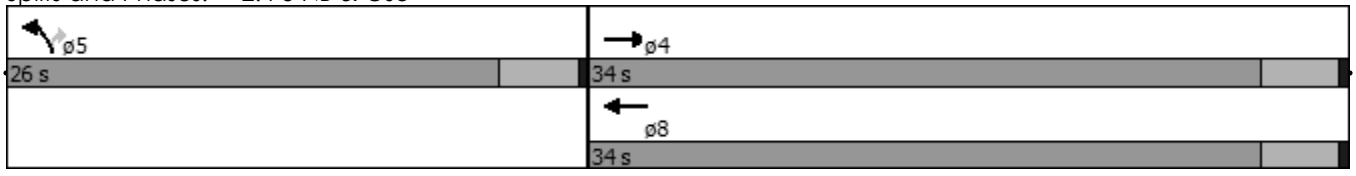


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2310	350	0	1270	680	460	0	500	0	0	0
Future Volume (vph)	0	2310	350	0	1270	680	460	0	500	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			243			716			18			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2432	368	0	1337	716	484	0	526	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		34.0			34.0		26.0		26.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		30.0	59.0		30.0	59.0	21.0		21.0			
Actuated g/C Ratio		0.51	1.00		0.51	1.00	0.36		0.36			
v/c Ratio		0.94	0.24		0.52	0.45	0.40		0.92			
Control Delay		23.8	0.4		10.8	0.9	15.3		42.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		23.8	0.4		10.8	0.9	15.3		42.2			
LOS		C	A		B	A	B		D			
Approach Delay		20.7			7.3							
Approach LOS		C			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 17.5 Intersection LOS: B
Intersection Capacity Utilization 82.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

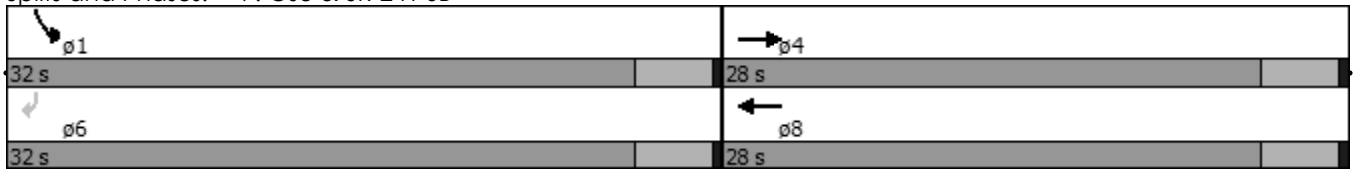


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰	↱
Traffic Volume (vph)	0	990	550	0	210	340
Future Volume (vph)	0	990	550	0	210	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	2	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	5085	5085	0	3433	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	5085	5085	0	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						142
Link Speed (mph)		50	50		45	
Link Distance (ft)		853	755		1178	
Travel Time (s)		11.6	10.3		17.8	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1042	579	0	221	358
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		28.0	28.0		32.0	32.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		18.2	18.2		28.1	28.1
Actuated g/C Ratio		0.33	0.33		0.52	0.52
v/c Ratio		0.61	0.34		0.12	0.40
Control Delay		16.6	13.9		7.9	7.0
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		16.6	13.9		7.9	7.0
LOS		B	B		A	A
Approach Delay		16.6	13.9		7.4	
Approach LOS		B	B		A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 13.4 Intersection LOS: B
Intersection Capacity Utilization 39.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Oso & SR-241 SB

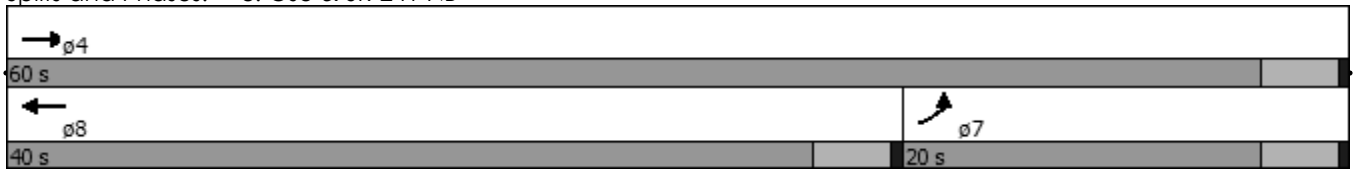


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	160	1040	550	90	0	0
Future Volume (vph)	160	1040	550	90	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275			0	0	0
Storage Lanes	1			0	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	3539	4955	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	3433	3539	4955	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			94			
Link Speed (mph)		50	50		25	
Link Distance (ft)		755	986		982	
Travel Time (s)		10.3	13.4		26.8	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	1095	674	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		24	24		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						
Total Split (s)	20.0	60.0	40.0			
Total Lost Time (s)	4.0	4.0	4.0			
Act Effct Green (s)	7.0	20.8	13.4			
Actuated g/C Ratio	0.34	1.00	0.64			
v/c Ratio	0.15	0.31	0.21			
Control Delay	6.9	0.2	3.6			
Queue Delay	0.0	0.0	0.0			
Total Delay	6.9	0.2	3.6			
LOS	A	A	A			
Approach Delay		1.1	3.6			
Approach LOS		A	A			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 20.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.31
Intersection Signal Delay: 2.0 Intersection LOS: A
Intersection Capacity Utilization 39.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Oso & SR-241 NB

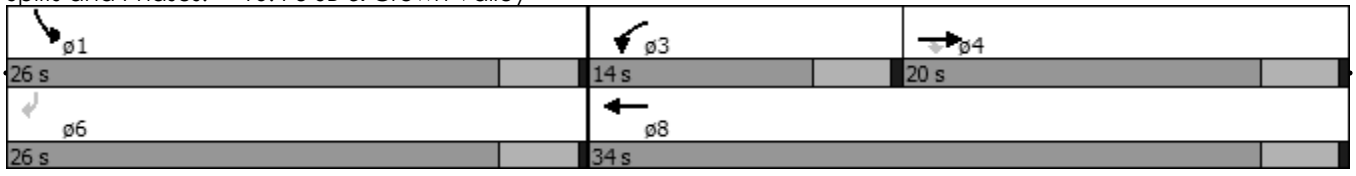


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1820	270	530	1260	0	0	0	0	1110	0	1010
Future Volume (vph)	0	1820	270	530	1260	0	0	0	0	1110	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1916	284	558	1326	0	0	0	0	1168	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		0.95	0.46	0.98	0.52					0.64		0.99
Control Delay		34.7	5.5	60.4	11.1					17.7		44.0
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.7	5.5	60.4	11.1					17.7		44.0
LOS		C	A	E	B					B		D
Approach Delay		31.0			25.7							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 29.1 Intersection LOS: C
Intersection Capacity Utilization 67.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

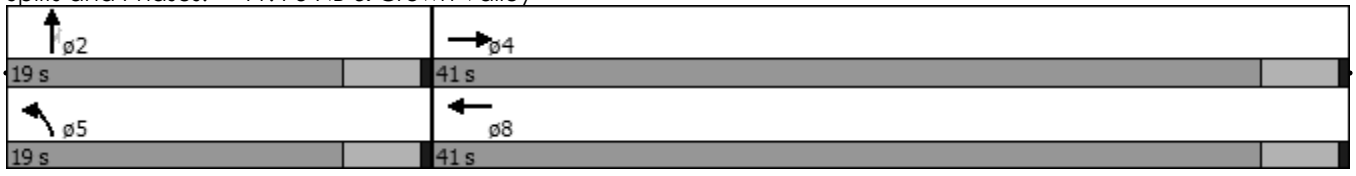


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2290	640	0	1610	1300	180	0	390	0	0	0
Future Volume (vph)	0	2290	640	0	1610	1300	180	0	390	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5977	1283	0	4604	1362	1681	1457	1504	0	0	0
Flt Permitted							0.950	0.996				
Satd. Flow (perm)	0	5977	1260	0	4604	1362	1681	1457	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31	546		309	698		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			19%			49%	10%		48%			
Lane Group Flow (vph)	0	2539	546	0	2365	698	170	216	214	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		41.0			41.0		19.0	19.0	19.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		37.0	60.0		37.0	60.0	15.0	15.0	15.0			
Actuated g/C Ratio		0.62	1.00		0.62	1.00	0.25	0.25	0.25			
v/c Ratio		0.69	0.43		0.80	0.51	0.40	0.57	0.55			
Control Delay		8.8	1.1		10.1	1.4	22.3	25.0	24.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		8.8	1.1		10.1	1.4	22.3	25.0	24.1			
LOS		A	A		B	A	C	C	C			
Approach Delay		7.4			8.1			23.9				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

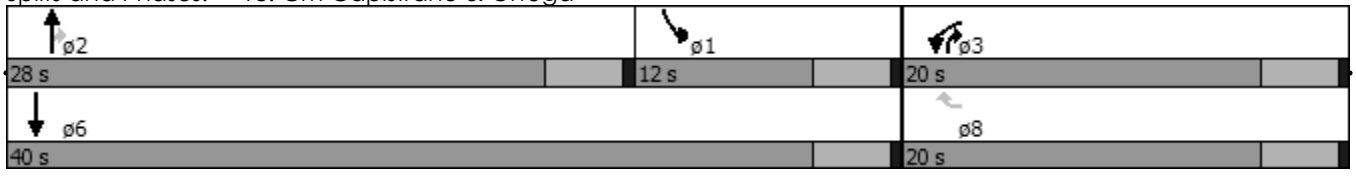


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	140	200	460	120	130	490
Future Volume (vph)	140	200	460	120	130	490
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211		126		
Link Speed (mph)	25		25			25
Link Distance (ft)	823		491			452
Travel Time (s)	22.4		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	211	484	126	137	516
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	28.0	20.0	12.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.1	9.9	26.7	36.8	7.6	36.1
Actuated g/C Ratio	0.19	0.18	0.49	0.68	0.14	0.67
v/c Ratio	0.45	0.47	0.53	0.12	0.55	0.41
Control Delay	23.7	7.2	14.3	0.9	32.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	7.2	14.3	0.9	32.5	6.1
LOS	C	A	B	A	C	A
Approach Delay	14.0		11.5			11.6
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 12.1 Intersection LOS: B
Intersection Capacity Utilization 51.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

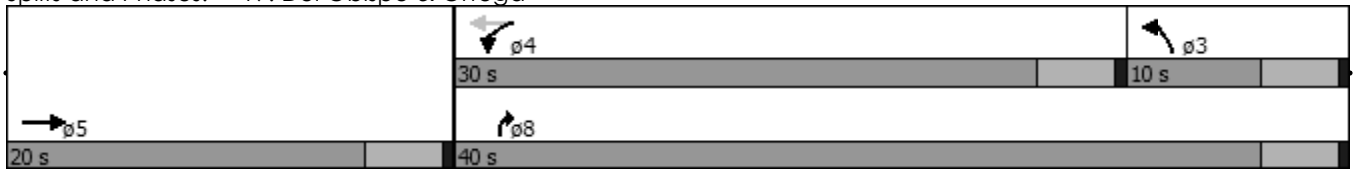


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	530	40	990	430	50	800
Future Volume (vph)	530	40	990	430	50	800
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	150		150	0
Storage Lanes		0	2		1	2
Taper Length (ft)			25		25	
Satd. Flow (prot)	5029	0	3433	1863	1770	2787
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	5029	0	3433	1863	1770	2787
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	19					117
Link Speed (mph)	25			35	35	
Link Distance (ft)	823			327	920	
Travel Time (s)	22.4			6.4	17.9	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	600	0	1042	453	53	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA		Prot	NA	Prot	Prot
Protected Phases	5		4		3	8
Permitted Phases				4		
Total Split (s)	20.0		30.0	30.0	10.0	40.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Act Effct Green (s)	12.8		26.1	26.1	6.0	36.1
Actuated g/C Ratio	0.22		0.46	0.46	0.11	0.63
v/c Ratio	0.52		0.66	0.53	0.28	0.47
Control Delay	20.3		15.1	14.5	28.8	5.9
Queue Delay	0.0		1.0	1.1	0.0	0.0
Total Delay	20.3		16.1	15.6	28.8	5.9
LOS	C		B	B	C	A
Approach Delay	20.3			15.9	7.3	
Approach LOS	C			B	A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 53.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

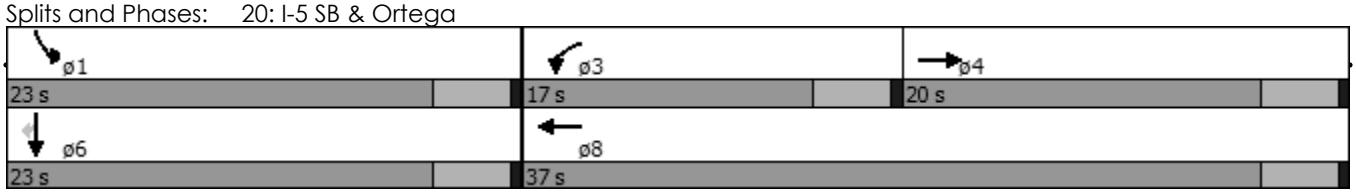


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1180	170	370	790	0	0	0	0	870	0	640
Future Volume (vph)	0	1180	170	370	790	0	0	0	0	870	0	640
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5482	0	1752	3725	0	0	0	0	1752	1549	1583
Flt Permitted				0.950						0.950	0.967	
Satd. Flow (perm)	0	5482	0	1752	3725	0	0	0	0	1752	1549	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50									91	149
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		327			407			806			782	
Travel Time (s)		5.6			6.9			12.2			11.8	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)										40%		26%
Lane Group Flow (vph)	0	1421	0	389	832	0	0	0	0	550	541	499
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases												6
Total Split (s)		20.0		17.0	37.0					23.0	23.0	23.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.0		13.0	33.0					19.0	19.0	19.0
Actuated g/C Ratio		0.27		0.22	0.55					0.32	0.32	0.32
v/c Ratio		0.95		1.03	0.41					0.99	0.98	0.83
Control Delay		36.5		81.2	8.6					60.9	54.6	27.7
Queue Delay		0.0		0.0	0.0					0.0	0.0	0.0
Total Delay		36.5		81.2	8.6					60.9	54.6	27.7
LOS		D		F	A					E	D	C
Approach Delay		36.5			31.7						48.3	
Approach LOS		D			C						D	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 39.5 Intersection LOS: D
Intersection Capacity Utilization 75.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

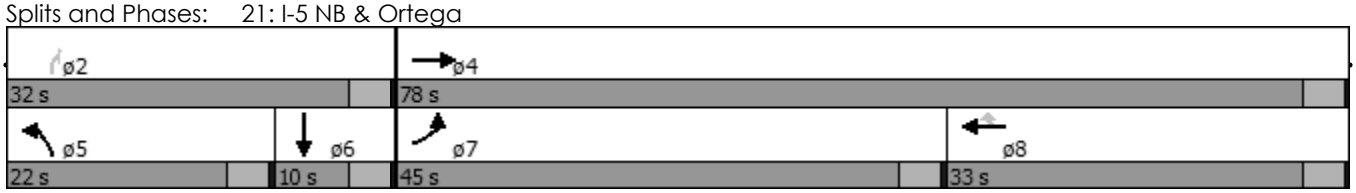


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	680	1370	0	0	990	730	170	0	480	0	0	0
Future Volume (vph)	680	1370	0	0	990	730	170	0	480	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3689	0	0	3689	1583	1770	0	1583	0	1863	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3689	0	0	3689	1583	1770	0	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						449			62			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	716	1442	0	0	1042	768	179	0	505	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5				6	
Permitted Phases						8			2			
Total Split (s)	45.0	78.0			33.0	33.0	22.0		32.0		10.0	
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0		4.0	
Act Effct Green (s)	41.0	74.0			29.0	29.0	15.3		28.0			
Actuated g/C Ratio	0.37	0.67			0.26	0.26	0.14		0.25			
v/c Ratio	1.09	0.58			1.07	1.03	0.73		1.12			
Control Delay	94.9	10.8			89.4	58.0	62.2		115.4			
Queue Delay	10.3	49.3			0.0	0.0	0.0		0.0			
Total Delay	105.2	60.1			89.4	58.0	62.2		115.4			
LOS	F	E			F	E	E		F			
Approach Delay		75.1			76.1							
Approach LOS		E			E							

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 79.4 Intersection LOS: E
Intersection Capacity Utilization 89.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

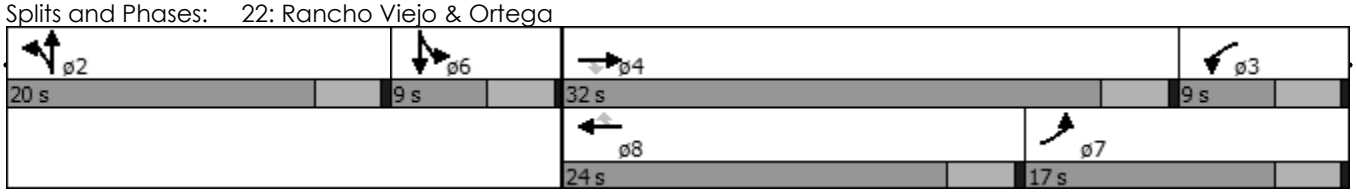


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	1310	420	40	1080	120	440	100	30	110	90	150
Future Volume (vph)	180	1310	420	40	1080	120	440	100	30	110	90	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1782	0	1770	3387	0
Flt Permitted	0.950			0.950			0.950			0.950	0.998	
Satd. Flow (perm)	1770	3654	1524	1770	5481	1583	3539	1782	0	1770	3387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			442			203		20			158	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	189	1379	442	42	1137	126	463	137	0	104	265	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	17.0	32.0	32.0	9.0	24.0	24.0	20.0	20.0		9.0	9.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	11.5	29.4	29.4	5.0	19.1	19.1	16.1	16.1		5.0	5.0	
Actuated g/C Ratio	0.17	0.43	0.43	0.07	0.28	0.28	0.24	0.24		0.07	0.07	
v/c Ratio	0.63	0.87	0.49	0.32	0.73	0.21	0.55	0.31		0.79	0.67	
Control Delay	36.6	26.6	3.7	37.8	25.4	1.6	26.2	21.3		74.6	23.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	36.6	26.6	3.7	37.8	25.4	1.6	26.2	21.3		74.6	23.2	
LOS	D	C	A	D	C	A	C	C		E	C	
Approach Delay		22.5			23.5			25.1			37.7	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 67.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 24.5 Intersection LOS: C
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

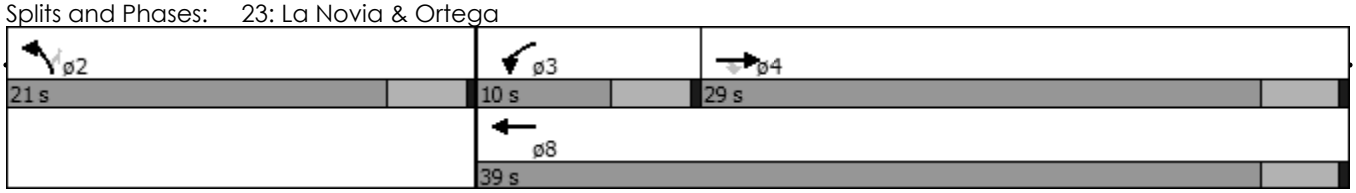


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1310	240	160	1030	230	150
Future Volume (vph)	1310	240	160	1030	230	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1493	1770	3471	3433	1529
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		208				158
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1379	253	168	1084	242	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	29.0	29.0	10.0	39.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	25.0	25.0	6.0	35.0	17.0	17.0
Actuated g/C Ratio	0.42	0.42	0.10	0.58	0.28	0.28
v/c Ratio	0.95	0.34	0.95	0.54	0.25	0.29
Control Delay	33.9	4.5	88.6	8.8	17.4	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	4.5	88.6	8.8	17.4	5.1
LOS	C	A	F	A	B	A
Approach Delay	29.4			19.5	12.5	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 23.6 Intersection LOS: C
Intersection Capacity Utilization 68.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

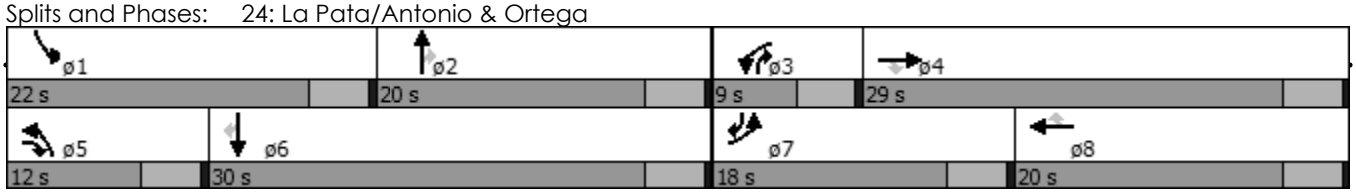


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	820	70	10	280	100	180	110	20	300	90	470
Future Volume (vph)	460	820	70	10	280	100	180	110	20	300	90	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1518	1770	3654	1518	3539	5588	1518	1770	5588	2948
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			232			177			192
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	484	863	74	11	295	105	189	116	21	316	95	495
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	18.0	29.0	12.0	9.0	20.0	20.0	12.0	20.0	9.0	22.0	30.0	18.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.4	26.2	34.0	5.0	12.1	12.1	7.8	17.4	22.4	16.5	26.1	39.5
Actuated g/C Ratio	0.18	0.35	0.45	0.07	0.16	0.16	0.10	0.23	0.30	0.22	0.35	0.52
v/c Ratio	0.77	0.68	0.10	0.09	0.50	0.24	0.52	0.09	0.04	0.82	0.05	0.30
Control Delay	39.6	25.1	1.1	37.0	32.0	1.3	38.5	25.1	0.1	47.4	17.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	25.1	1.1	37.0	32.0	1.3	38.5	25.1	0.1	47.4	17.9	5.7
LOS	D	C	A	D	C	A	D	C	A	D	B	A
Approach Delay		28.8			24.3			31.3			21.5	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 26.3 Intersection LOS: C
Intersection Capacity Utilization 60.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

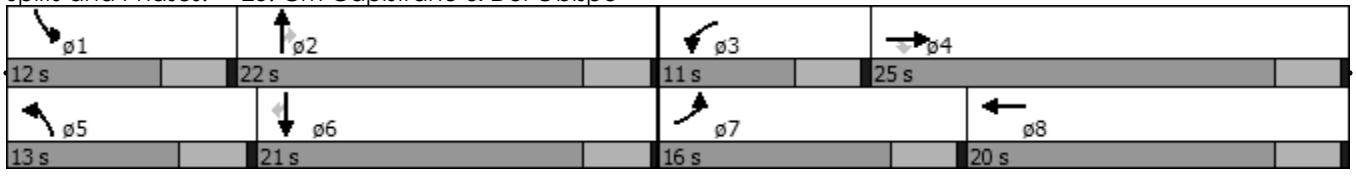


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	610	250	160	710	30	370	230	120	80	190	380
Future Volume (vph)	250	610	250	160	710	30	370	230	120	80	190	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3509	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1524	3433	3509	0	3433	1863	1524	1770	1863	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			263		6				203			280
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	642	263	168	779	0	389	242	126	84	200	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	16.0	25.0	25.0	11.0	20.0		13.0	22.0	22.0	12.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.9	21.0	21.0	6.9	16.0		9.0	20.6	20.6	7.4	17.0	17.0
Actuated g/C Ratio	0.17	0.30	0.30	0.10	0.23		0.13	0.29	0.29	0.11	0.24	0.24
v/c Ratio	0.87	0.60	0.41	0.50	0.97		0.88	0.44	0.21	0.45	0.44	0.69
Control Delay	59.2	23.8	5.0	35.3	53.0		53.7	24.6	1.6	37.3	26.2	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.2	23.8	5.0	35.3	53.0		53.7	24.6	1.6	37.3	26.2	14.7
LOS	E	C	A	D	D		D	C	A	D	C	B
Approach Delay		27.5			49.8			35.7			20.8	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 69.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 33.9		Intersection LOS: C	
Intersection Capacity Utilization 71.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

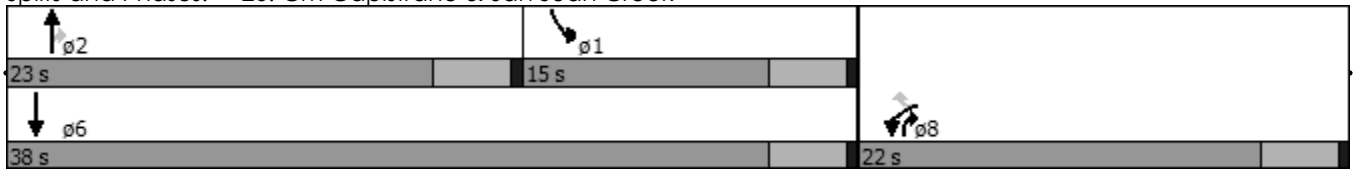


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	510	420	390	360	350	580
Future Volume (vph)	510	420	390	360	350	580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3333	1441	3539	1583	3433	3539
Flt Permitted	0.962				0.950	
Satd. Flow (perm)	3333	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	56	305		55		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		31%				
Lane Group Flow (vph)	674	305	411	379	368	611
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.0	16.0	19.0	35.1	11.0	34.1
Actuated g/C Ratio	0.28	0.28	0.33	0.60	0.19	0.59
v/c Ratio	0.70	0.50	0.35	0.40	0.57	0.29
Control Delay	21.6	5.7	16.4	4.9	25.8	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	5.7	16.4	4.9	25.8	6.8
LOS	C	A	B	A	C	A
Approach Delay	16.7		10.9			14.0
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 14.0 Intersection LOS: B
Intersection Capacity Utilization 52.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

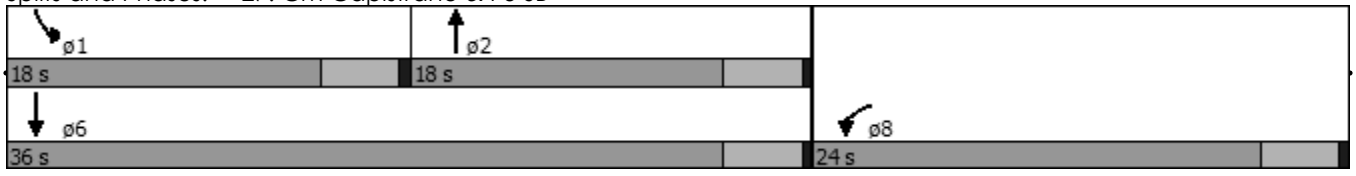


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	780	290	460	30	530	560
Future Volume (vph)	780	290	460	30	530	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		305		32		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	821	305	484	32	558	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		18.0		18.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.8	57.9	15.1	57.9	12.9	32.1
Actuated g/C Ratio	0.31	1.00	0.26	1.00	0.22	0.55
v/c Ratio	0.78	0.19	0.52	0.02	0.73	0.30
Control Delay	24.0	0.3	21.7	0.0	27.3	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	0.3	21.7	0.0	27.3	7.8
LOS	C	A	C	A	C	A
Approach Delay	17.6		20.4			17.3
Approach LOS	B		C			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 18.0 Intersection LOS: B
Intersection Capacity Utilization 60.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

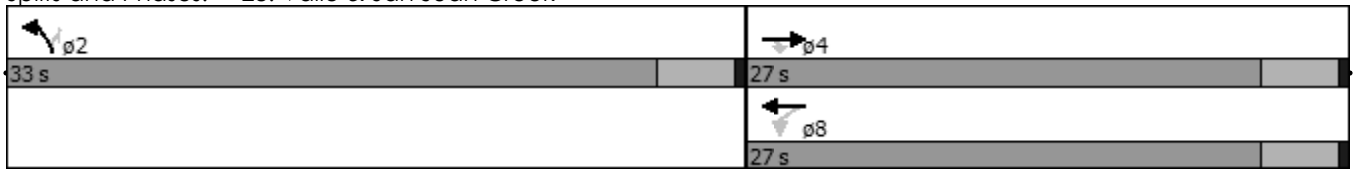


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	370	340	60	490	440	230
Future Volume (vph)	370	340	60	490	440	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3522	1770	1583
Flt Permitted				0.798	0.950	
Satd. Flow (perm)	1863	1493	0	2824	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		358				242
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	389	358	0	579	463	242
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	27.0	27.0	27.0	27.0	33.0	33.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.8	16.8		16.8	29.2	29.2
Actuated g/C Ratio	0.31	0.31		0.31	0.54	0.54
v/c Ratio	0.67	0.50		0.66	0.48	0.25
Control Delay	22.3	4.6		19.8	11.1	2.2
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	22.3	4.6		19.8	11.1	2.2
LOS	C	A		B	B	A
Approach Delay	13.8			19.8	8.0	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 13.5 Intersection LOS: B
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek



Intersection	
Intersection Delay, s/veh	33.4
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	400	60	60	0	30	30	110	0	130	160	30
Future Vol, veh/h	0	400	60	60	0	30	30	110	0	130	160	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	421	63	63	0	32	32	116	0	137	168	32
Number of Lanes	0	0	1	1	0	0	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	63.6	12.8	16
HCM LOS	F	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	87%	0%	50%	0%	41%	0%
Vol Thru, %	0%	84%	13%	0%	50%	0%	59%	0%
Vol Right, %	0%	16%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	190	460	60	60	110	220	180
LT Vol	130	0	400	0	30	0	90	0
Through Vol	0	160	60	0	30	0	130	0
RT Vol	0	30	0	60	0	110	0	180
Lane Flow Rate	137	200	484	63	63	116	232	189
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.324	0.438	1	0.119	0.15	0.244	0.52	0.376
Departure Headway (Hd)	8.514	7.883	7.961	6.796	8.562	7.577	8.076	7.144
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	427	460	460	531	421	474	449	506
Service Time	6.18	5.572	5.661	4.496	6.28	5.329	5.756	4.854
HCM Lane V/C Ratio	0.321	0.435	1.052	0.119	0.15	0.245	0.517	0.374
HCM Control Delay	15.2	16.6	70.5	10.4	12.8	12.8	19.2	14.1
HCM Lane LOS	C	C	F	B	B	B	C	B
HCM 95th-tile Q	1.4	2.2	13	0.4	0.5	0.9	2.9	1.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	90	130	180
Future Vol, veh/h	0	90	130	180
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	95	137	189
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	16.9
HCM LOS	C

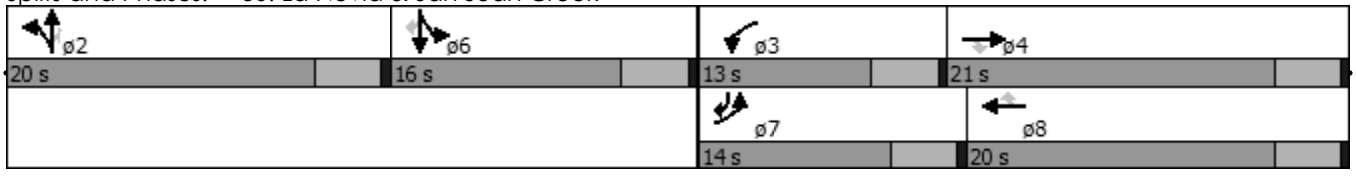
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	120	10	100	120	250	90	160	10	180	190	250
Future Volume (vph)	150	120	10	100	120	250	90	160	10	180	190	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1484	1770	1863	1484	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			140			263			140			263
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	126	11	105	126	263	95	168	11	189	200	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	14.0	21.0	21.0	13.0	20.0	20.0	20.0	20.0	20.0	16.0	16.0	14.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.2	13.1	13.1	8.0	9.7	9.7	16.1	16.1	16.1	12.0	12.0	25.3
Actuated g/C Ratio	0.15	0.21	0.21	0.13	0.15	0.15	0.26	0.26	0.26	0.19	0.19	0.40
v/c Ratio	0.61	0.33	0.03	0.47	0.44	0.58	0.21	0.35	0.02	0.56	0.56	0.33
Control Delay	37.5	25.5	0.1	33.7	29.3	9.4	21.4	23.0	0.1	31.7	31.4	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	25.5	0.1	33.7	29.3	9.4	21.4	23.0	0.1	31.7	31.4	3.4
LOS	D	C	A	C	C	A	C	C	A	C	C	A
Approach Delay		31.0			19.6			21.6			20.2	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 63.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 22.1		Intersection LOS: C	
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek



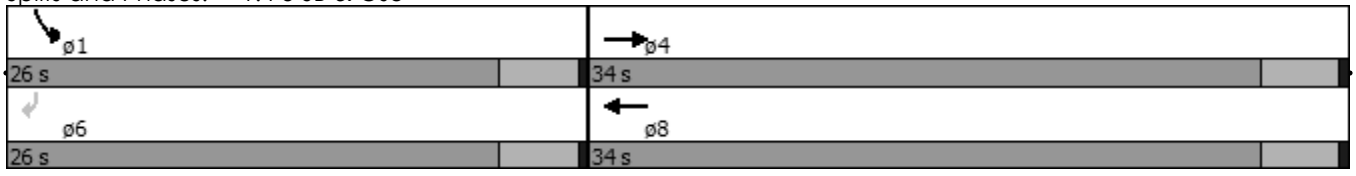
HCM Signalized Intersection Data Set 2
Alternative Existing Baseline –
No Project

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Future Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			537			684						25
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1011	537	0	1589	684	0	0	0	600	0	295
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		34.0			34.0					26.0		26.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		26.2	56.3		26.2	56.3				22.1		22.1
Actuated g/C Ratio		0.47	1.00		0.47	1.00				0.39		0.39
v/c Ratio		0.43	0.35		0.67	0.43				0.45		0.27
Control Delay		10.5	0.6		13.2	0.9				14.7		12.3
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		10.5	0.6		13.2	0.9				14.7		12.3
LOS		B	A		B	A				B		B
Approach Delay		7.1			9.5							
Approach LOS		A			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 52.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

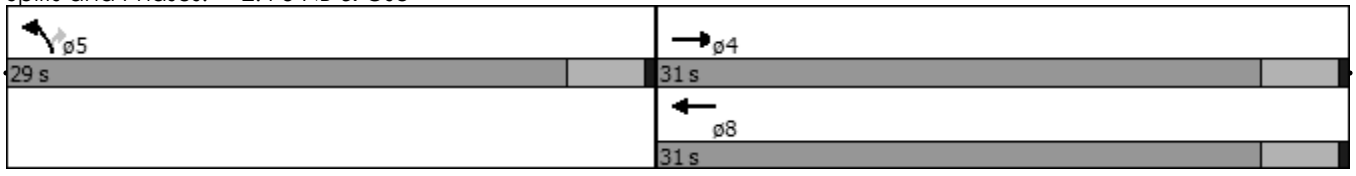


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1120	410	0	1790	1370	370	0	430	0	0	0
Future Volume (vph)	0	1120	410	0	1790	1370	370	0	430	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			432			1091			28			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1179	432	0	1884	1442	389	0	453	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		31.0			31.0		29.0		29.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		26.1	53.4		26.1	53.4	19.2		19.2			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.36		0.36			
v/c Ratio		0.48	0.28		0.76	0.91	0.32		0.77			
Control Delay		10.7	0.5		14.6	11.5	12.9		24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		10.7	0.5		14.6	11.5	12.9		24.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.0			13.3							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

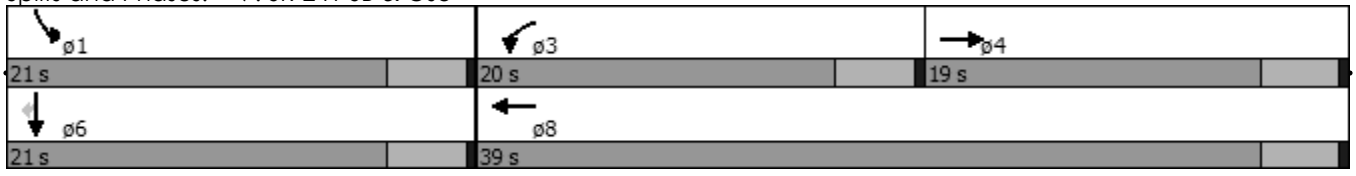


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	780	870	230	1960	0	0	0	0	40	470	60
Future Volume (vph)	0	780	870	230	1960	0	0	0	0	40	470	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			471									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	916	242	2063	0	0	0	0	42	495	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		20.0	39.0					21.0	21.0	21.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.6	58.4	12.6	33.3					10.2	17.1	17.1
Actuated g/C Ratio		0.28	1.00	0.22	0.57					0.17	0.29	0.29
v/c Ratio		0.57	0.58	0.63	0.71					0.07	0.48	0.12
Control Delay		20.2	1.5	28.5	10.7					18.2	19.4	3.1
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		20.2	1.5	28.5	10.7					18.2	19.4	3.1
LOS		C	A	C	B					B	B	A
Approach Delay		10.3			12.5						17.6	
Approach LOS		B			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 68.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

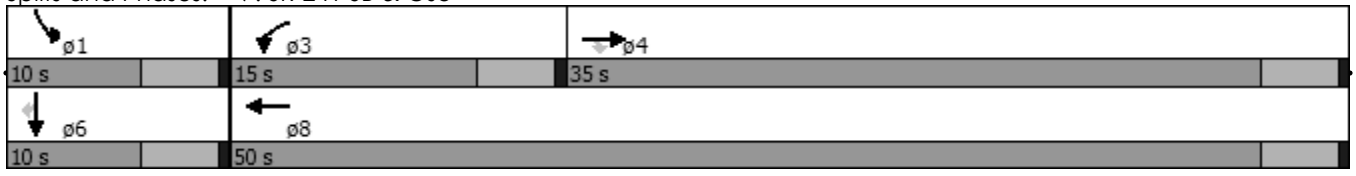


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	780	870	230	1960	0	0	0	0	40	0	60
Future Volume (vph)	0	780	870	230	1960	0	0	0	0	40	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Flt Permitted				0.950						0.950	0.993	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			478								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										13%		46%
Lane Group Flow (vph)	0	821	916	242	2063	0	0	0	0	37	34	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		35.0	35.0	15.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		27.5	27.5	10.4	42.0					5.9	2.2	6.1
Actuated g/C Ratio		0.49	0.49	0.19	0.75					0.10	0.04	0.11
v/c Ratio		0.33	0.90	0.74	0.54					0.21	0.23	0.14
Control Delay		9.0	20.3	39.1	3.5					28.0	3.8	1.3
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		9.0	20.3	39.1	3.5					28.0	3.8	1.3
LOS		A	C	D	A					C	A	A
Approach Delay		14.9			7.3						11.5	
Approach LOS		B			A						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 10.6 Intersection LOS: B
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

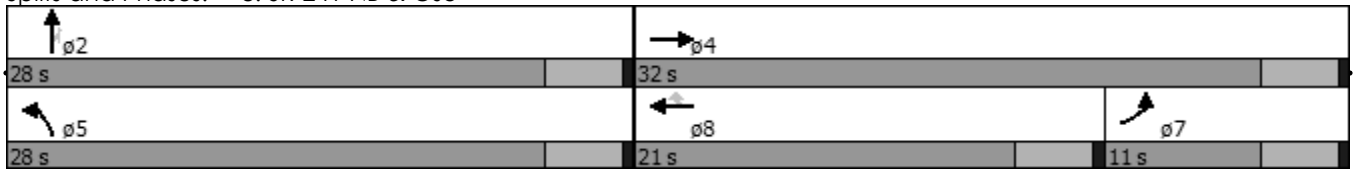


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	990	790	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	990	790	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1221	337	1042	832	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	11.0	32.0			21.0	21.0	28.0	28.0	28.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	7.0	28.0			17.0	17.0	24.0	24.0	24.0			
Actuated g/C Ratio	0.12	0.47			0.28	0.28	0.40	0.40	0.40			
v/c Ratio	0.76	0.34			0.85	0.68	0.76	0.59	0.11			
Control Delay	40.5	10.9			27.6	22.0	19.9	16.2	2.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	40.5	10.9			27.6	22.0	19.9	16.2	2.9			
LOS	D	B			C	C	B	B	A			
Approach Delay		21.2			26.4			17.7				
Approach LOS		C			C			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

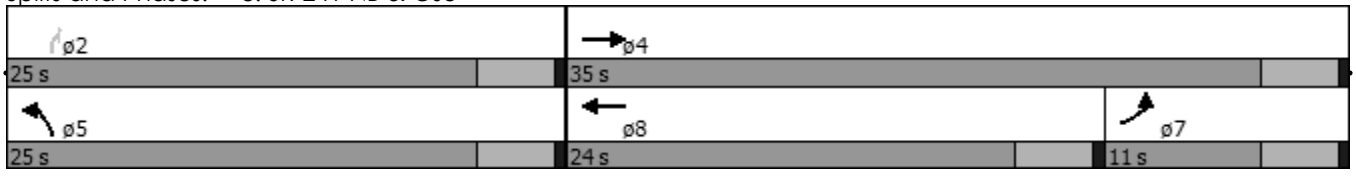


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	990	0	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	990	0	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					124				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1558	0	1042	0	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	11.0	35.0			24.0		25.0		25.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	7.0	31.0			20.0		21.0		21.0			
Actuated g/C Ratio	0.12	0.52			0.33		0.35		0.35			
v/c Ratio	0.76	0.31			0.91		0.87		0.12			
Control Delay	40.5	8.9			27.6		28.1		3.4			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	40.5	8.9			27.6		28.1		3.4			
LOS	D	A			C		C		A			
Approach Delay		20.0			27.6							
Approach LOS		B			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

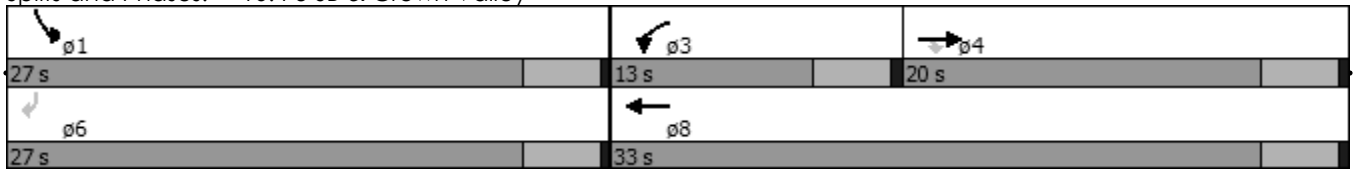


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1410	210	360	1210	0	0	0	0	1290	0	790
Future Volume (vph)	0	1410	210	360	1210	0	0	0	0	1290	0	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	221	379	1274	0	0	0	0	1358	0	832
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.74	0.39	0.74	0.52					0.71		0.74
Control Delay		22.7	5.3	34.9	11.6					18.2		18.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		22.7	5.3	34.9	11.6					18.2		18.9
LOS		C	A	C	B					B		B
Approach Delay		20.4			17.0							
Approach LOS		C			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 18.6		Intersection LOS: B	
Intersection Capacity Utilization 61.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 10: I-5 SB & Crown Valley

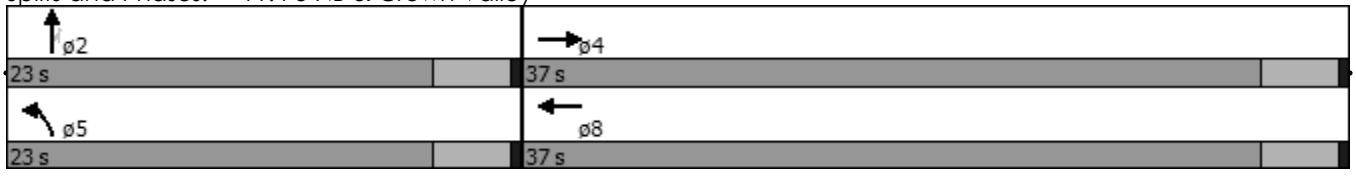


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	590	0	1390	1200	190	0	490	0	0	0
Future Volume (vph)	0	2100	590	0	1390	1200	190	0	490	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5977	1283	0	4590	1362	1681	1454	1504	0	0	0
Flt Permitted							0.950	0.996				
Satd. Flow (perm)	0	5977	1260	0	4590	1362	1681	1454	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26	503		289	631		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			19%			50%	10%		48%			
Lane Group Flow (vph)	0	2329	503	0	2095	631	180	268	268	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		37.0			37.0		23.0	23.0	23.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		33.0	60.0		33.0	60.0	19.0	19.0	19.0			
Actuated g/C Ratio		0.55	1.00		0.55	1.00	0.32	0.32	0.32			
v/c Ratio		0.71	0.40		0.79	0.46	0.34	0.57	0.55			
Control Delay		11.3	0.9		11.8	1.1	17.9	21.5	20.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		11.3	0.9		11.8	1.1	17.9	21.5	20.9			
LOS		B	A		B	A	B	C	C			
Approach Delay		9.5			9.4			20.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

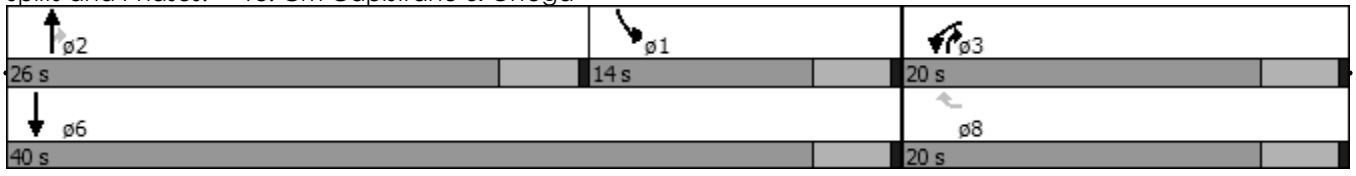


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	180	190	360	120	130	540
Future Volume (vph)	180	190	360	120	130	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		200		126		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	200	379	126	137	568
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	26.0	20.0	14.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.1	11.1	25.1	36.2	9.2	36.1
Actuated g/C Ratio	0.20	0.20	0.45	0.66	0.17	0.65
v/c Ratio	0.53	0.44	0.45	0.12	0.47	0.47
Control Delay	25.4	6.6	14.9	1.0	27.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	6.6	14.9	1.0	27.1	7.0
LOS	C	A	B	A	C	A
Approach Delay	15.7		11.5			10.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 12.2 Intersection LOS: B
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

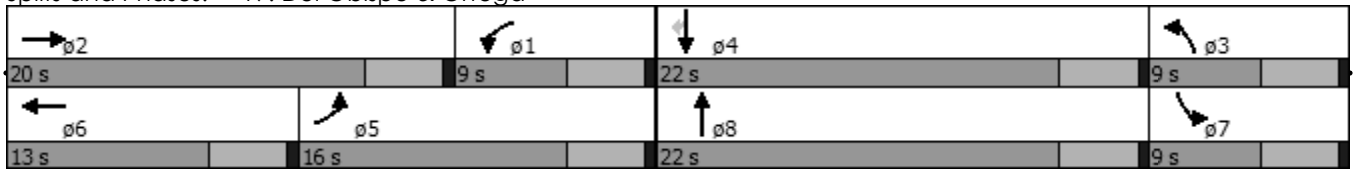


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	10	40	10	10	10	30	980	10	10	800	620
Future Volume (vph)	380	10	40	10	10	10	30	980	10	10	800	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			11			3				653
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	400	53	0	11	22	0	32	1043	0	11	842	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	16.0	20.0		9.0	13.0		9.0	22.0		9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	10.2	9.6		6.0	6.0		5.1	25.9		5.1	18.2	18.2
Actuated g/C Ratio	0.21	0.20		0.13	0.13		0.11	0.55		0.11	0.38	0.38
v/c Ratio	0.54	0.15		0.05	0.10		0.17	0.38		0.06	0.62	0.66
Control Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.7	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.7	5.4
LOS	C	B		B	B		C	A		C	B	A
Approach Delay		19.1			17.6			9.2			11.3	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 47.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 19: Del Obispo & Ortega

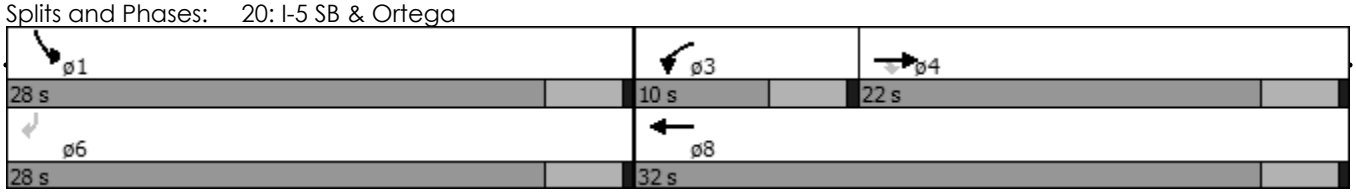


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1230	150	170	870	0	0	0	0	920	0	560
Future Volume (vph)	0	1230	150	170	870	0	0	0	0	920	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									160
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1295	158	179	916	0	0	0	0	968	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		22.0	22.0	10.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.0	18.0	6.0	25.7					24.2		24.2
Actuated g/C Ratio		0.31	0.31	0.10	0.44					0.42		0.42
v/c Ratio		0.75	0.27	0.49	0.55					0.66		0.42
Control Delay		21.6	4.7	30.4	13.2					17.0		10.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.6	4.7	30.4	13.2					17.0		10.1
LOS		C	A	C	B					B		B
Approach Delay		19.8			16.0							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 64.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

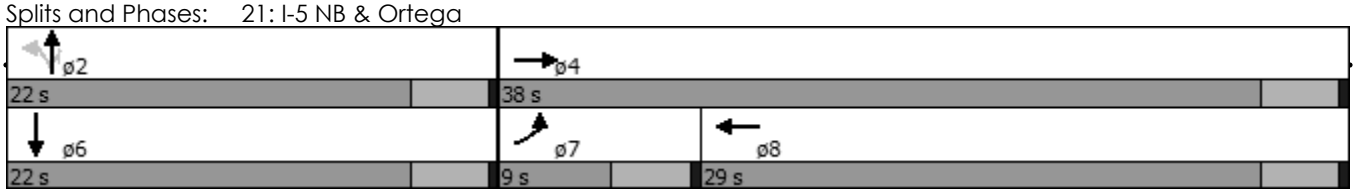


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1470	680	0	2170	10	270	10	350	0	0	10
Future Volume (vph)	10	1470	680	0	2170	10	270	10	350	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5419	1583	0	5529	0	0	1751	1583	0	1611	0
Flt Permitted	0.950							0.757				
Satd. Flow (perm)	1770	5419	1555	0	5529	0	0	1379	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76	508		2			15	91		182	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			29%						14%			
Lane Group Flow (vph)	11	1755	508	0	2295	0	0	347	316	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	38.0			29.0		22.0	22.0	22.0		22.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.1	56.2		28.4			18.1	18.1		18.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.32	0.32		0.32	
v/c Ratio	0.07	0.60	0.33		0.82			0.77	0.55		0.02	
Control Delay	26.4	9.3	0.6		16.5			31.9	16.3		0.0	
Queue Delay	0.0	4.3	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.4	13.6	0.6		16.5			31.9	16.3		0.0	
LOS	C	B	A		B			C	B		A	
Approach Delay		10.7			16.5			24.4			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 15.0 Intersection LOS: B
Intersection Capacity Utilization 78.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

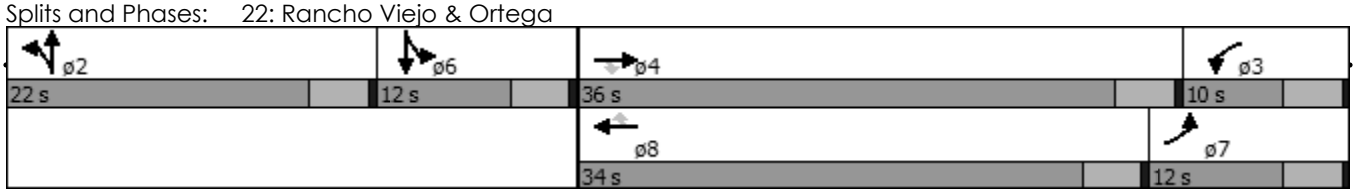


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1230	440	70	1780	240	280	150	40	170	150	100
Future Volume (vph)	140	1230	440	70	1780	240	280	150	40	170	150	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1787	0	1770	3507	0
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1787	0	1770	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			439			253		15			105	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										17%		
Lane Group Flow (vph)	147	1295	463	74	1874	253	295	200	0	149	293	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	12.0	36.0	36.0	10.0	34.0	34.0	22.0	22.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	8.0	34.0	34.0	5.9	30.0	30.0	18.0	18.0		8.0	8.0	
Actuated g/C Ratio	0.10	0.42	0.42	0.07	0.38	0.38	0.22	0.22		0.10	0.10	
v/c Ratio	0.83	0.83	0.52	0.57	0.91	0.34	0.37	0.48		0.84	0.66	
Control Delay	72.7	27.5	4.6	54.1	32.0	3.8	27.8	29.5		74.4	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	72.7	27.5	4.6	54.1	32.0	3.8	27.8	29.5		74.4	29.8	
LOS	E	C	A	D	C	A	C	C		E	C	
Approach Delay		25.4			29.5			28.5			44.8	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 29.2 Intersection LOS: C
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

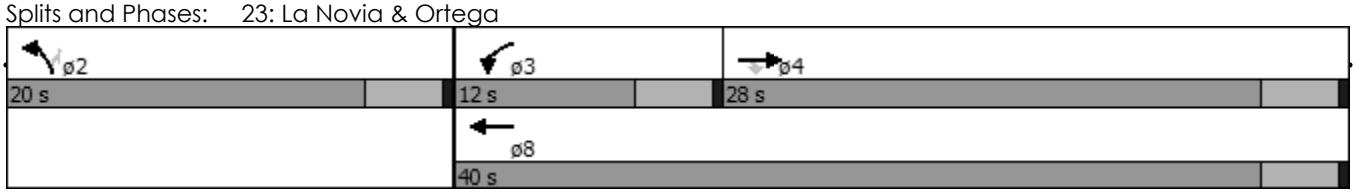


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1050	260	150	1830	300	150
Future Volume (vph)	1050	260	150	1830	300	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1493	1770	3471	3433	1529
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		273				158
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1105	274	158	1926	316	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	28.0	28.0	12.0	40.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	26.4	26.4	7.8	36.0	16.0	16.0
Actuated g/C Ratio	0.44	0.44	0.13	0.60	0.27	0.27
v/c Ratio	0.72	0.34	0.69	0.93	0.35	0.30
Control Delay	18.5	3.2	42.9	20.8	19.1	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	3.2	42.9	20.8	19.1	5.4
LOS	B	A	D	C	B	A
Approach Delay	15.4			22.5	14.5	
Approach LOS	B			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

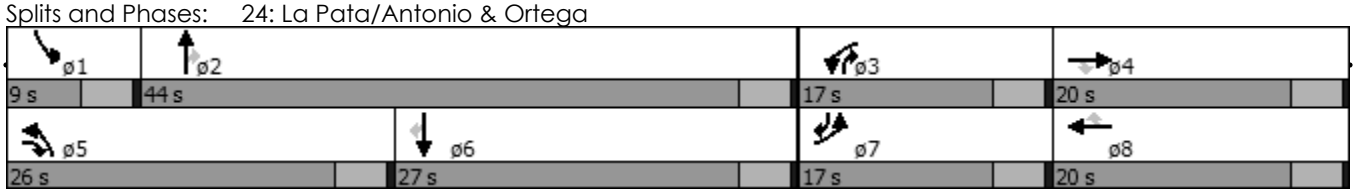


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	410	140	670	250	390	20	630	1020	140	10	1290	770
Future Volume (vph)	410	140	670	250	390	20	630	1020	140	10	1290	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			147			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	432	147	705	263	411	21	663	1074	147	11	1358	811
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	26.0	17.0	20.0	20.0	26.0	44.0	17.0	9.0	27.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.0	14.3	36.3	13.0	14.3	14.3	22.0	47.3	60.3	5.0	23.0	36.0
Actuated g/C Ratio	0.15	0.16	0.41	0.15	0.16	0.16	0.25	0.54	0.68	0.06	0.26	0.41
v/c Ratio	0.83	0.25	1.05	1.01	0.70	0.06	0.75	0.36	0.13	0.11	0.93	0.63
Control Delay	52.0	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	45.1	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	45.1	18.3
LOS	D	C	E	F	D	A	D	B	A	D	D	B
Approach Delay		60.5			62.2			20.6			35.1	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 39.1 Intersection LOS: D
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

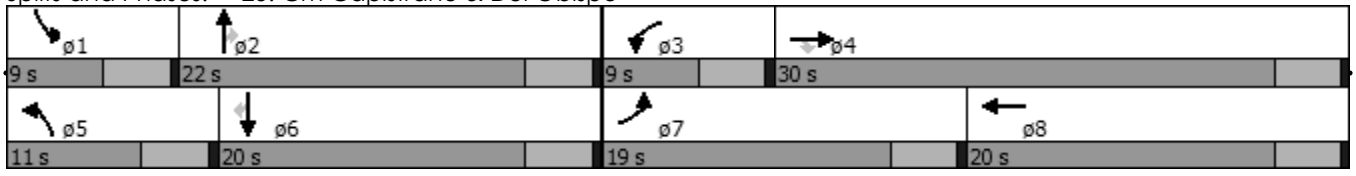


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Future Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3525	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1524	3433	3525	0	3433	1863	1524	1770	1863	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284		2				203			386
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	842	284	74	643	0	326	221	53	42	211	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	30.0	30.0	9.0	20.0		11.0	22.0	22.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	27.3	27.3	5.0	15.4		7.0	21.6	21.6	5.0	16.0	16.0
Actuated g/C Ratio	0.22	0.39	0.39	0.07	0.22		0.10	0.31	0.31	0.07	0.23	0.23
v/c Ratio	0.99	0.61	0.37	0.30	0.82		0.94	0.38	0.09	0.33	0.49	0.70
Control Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
LOS	E	B	A	C	D		E	C	A	D	C	B
Approach Delay		30.6			35.6			46.6			18.1	
Approach LOS		C			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 31.9 Intersection LOS: C
Intersection Capacity Utilization 72.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 25: Cm Capistrano & Del Obispo

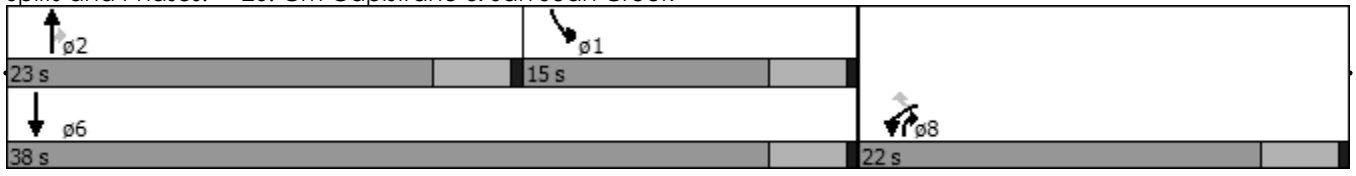


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	430	460	310	290	270	460
Future Volume (vph)	430	460	310	290	270	460
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3282	1441	3539	1583	3433	3539
Flt Permitted	0.966				0.950	
Satd. Flow (perm)	3282	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	114	295		105		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		39%				
Lane Group Flow (vph)	642	295	326	305	284	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.9	14.9	19.1	34.0	11.0	34.1
Actuated g/C Ratio	0.26	0.26	0.33	0.60	0.19	0.60
v/c Ratio	0.68	0.51	0.28	0.32	0.43	0.23
Control Delay	19.3	5.9	15.4	3.4	23.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.3	5.9	15.4	3.4	23.3	6.2
LOS	B	A	B	A	C	A
Approach Delay	15.1		9.6			12.5
Approach LOS	B		A			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 48.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

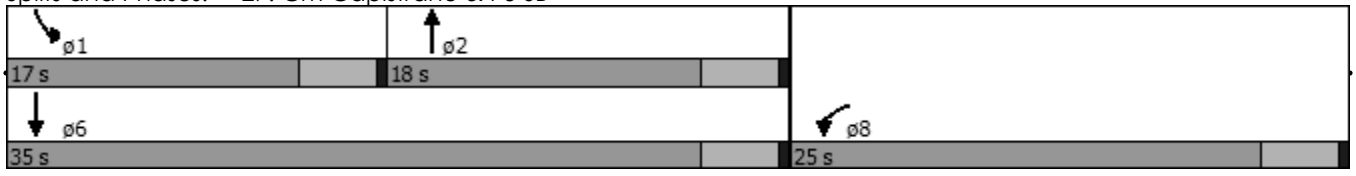


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	690	240	360	20	440	450
Future Volume (vph)	690	240	360	20	440	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		253		21		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	726	253	379	21	463	474
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	25.0		18.0		17.0	35.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	16.6	55.7	15.5	55.7	11.6	31.1
Actuated g/C Ratio	0.30	1.00	0.28	1.00	0.21	0.56
v/c Ratio	0.71	0.16	0.39	0.01	0.65	0.24
Control Delay	21.6	0.2	19.0	0.0	25.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	0.2	19.0	0.0	25.2	7.3
LOS	C	A	B	A	C	A
Approach Delay	16.0		18.0			16.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 52.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

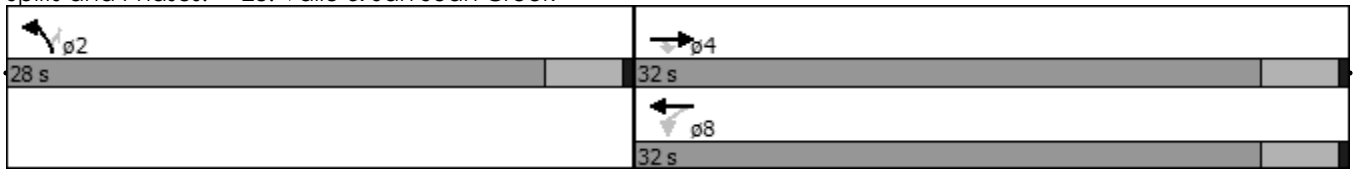


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	330	230	150	550	340	100
Future Volume (vph)	330	230	150	550	340	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.720	0.950	
Satd. Flow (perm)	1863	1493	0	2548	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		242				105
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	347	242	0	737	358	105
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	19.9	19.9		19.9	24.2	24.2
Actuated g/C Ratio	0.38	0.38		0.38	0.46	0.46
v/c Ratio	0.49	0.34		0.76	0.44	0.13
Control Delay	14.4	3.1		19.4	13.0	3.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	14.4	3.1		19.4	13.0	3.4
LOS	B	A		B	B	A
Approach Delay	9.8			19.4	10.8	
Approach LOS	A			B	B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 52.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

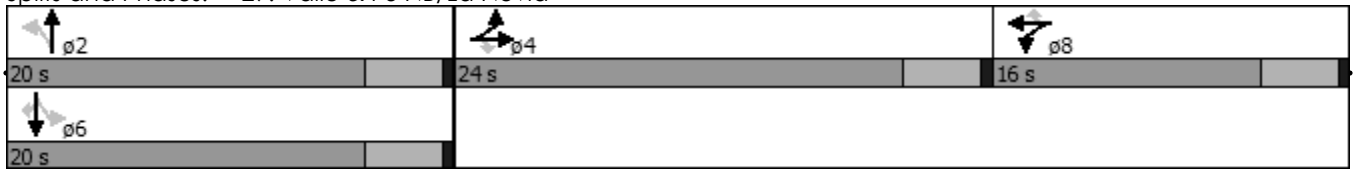


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Future Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1781	1583	0	1857	1583	1770	1814	0	0	1857	1583
Flt Permitted		0.956			0.997		0.620				0.987	
Satd. Flow (perm)	0	1781	1583	0	1857	1583	1155	1814	0	0	1839	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			91		11				221
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	358	74	0	179	53	74	85	0	0	200	221
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	16.0	16.0	16.0	20.0	20.0		20.0	20.0	20.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		14.9	14.9		9.8	9.8	16.9	16.9			16.9	16.9
Actuated g/C Ratio		0.29	0.29		0.19	0.19	0.33	0.33			0.33	0.33
v/c Ratio		0.69	0.14		0.50	0.14	0.19	0.14			0.33	0.33
Control Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
LOS		C	A		C	A	B	B			B	A
Approach Delay		20.9			20.8			16.4			11.2	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 51
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia

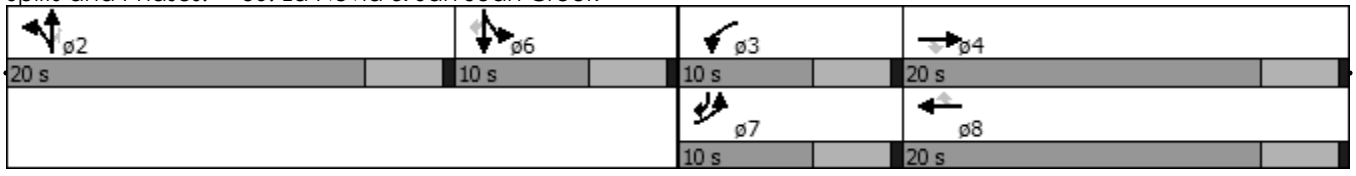


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Future Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			295			164			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	126	95	53	232	295	126	189	42	158	158	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.3	16.3	5.9	12.1	12.1	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.10	0.22	0.22	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.95	0.23	0.16	0.28	0.58	0.53	0.25	0.36	0.08	0.84	0.79	0.46
Control Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
LOS	F	B	A	C	C	A	B	B	A	E	E	A
Approach Delay		44.4			16.4			16.7			33.6	
Approach LOS		D			B			B			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

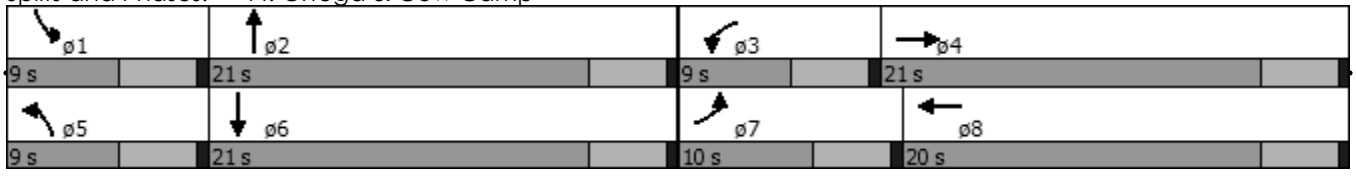


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	830	10	30	260	20	10	50	180	120	570	480
Future Volume (vph)	330	830	10	30	260	20	10	50	180	120	570	480
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3676	0	1770	3202	0	1770	3414	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3676	0	1770	3202	0	1770	3414	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			14			189			352	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	885	0	32	295	0	11	242	0	126	1105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	10.0	21.0		9.0	20.0		9.0	21.0		9.0	21.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	6.0	17.8		5.0	11.1		5.0	17.1		5.0	24.5	
Actuated g/C Ratio	0.11	0.32		0.09	0.20		0.09	0.31		0.09	0.44	
v/c Ratio	0.90	0.74		0.20	0.39		0.07	0.22		0.79	0.65	
Control Delay	56.2	22.7		28.2	19.4		26.0	5.4		63.1	12.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	56.2	22.7		28.2	19.4		26.0	5.4		63.1	12.5	
LOS	E	C		C	B		C	A		E	B	
Approach Delay		32.2			20.3			6.3			17.7	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 22.9 Intersection LOS: C
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp

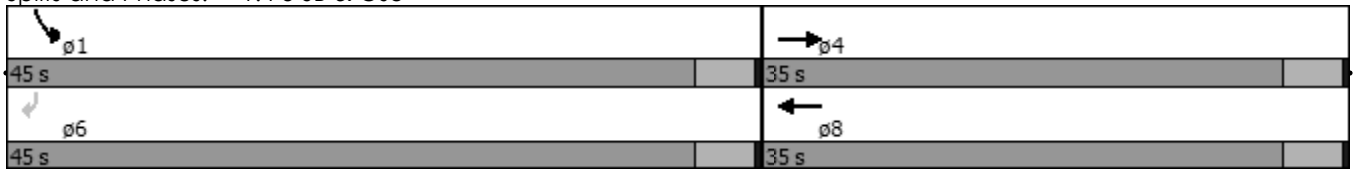


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1530	520	0	1410	470	0	0	0	1290	0	270
Future Volume (vph)	0	1530	520	0	1410	470	0	0	0	1290	0	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			459			495						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1611	547	0	1484	495	0	0	0	1358	0	284
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		35.0			35.0					45.0		45.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		30.3	79.3		30.3	79.3				41.0		41.0
Actuated g/C Ratio		0.38	1.00		0.38	1.00				0.52		0.52
v/c Ratio		0.83	0.36		0.76	0.31				0.77		0.20
Control Delay		26.7	0.6		24.5	0.5				19.1		10.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.7	0.6		24.5	0.5				19.1		10.4
LOS		C	A		C	A				B		B
Approach Delay		20.1			18.5							
Approach LOS		C			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 18.8		Intersection LOS: B	
Intersection Capacity Utilization 73.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

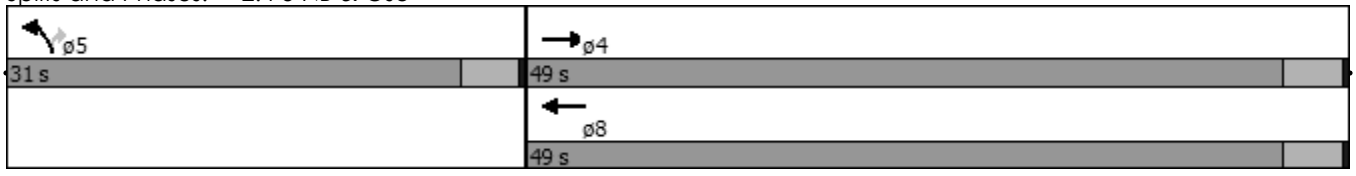


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2470	340	0	1290	910	590	0	440	0	0	0
Future Volume (vph)	0	2470	340	0	1290	910	590	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166			958			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2600	358	0	1358	958	621	0	463	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		49.0			49.0		31.0		31.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		45.1	78.1		45.1	78.1	25.0		25.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.32		0.32			
v/c Ratio		0.89	0.23		0.46	0.61	0.56		0.90			
Control Delay		19.9	0.4		10.5	1.7	24.2		46.8			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		19.9	0.4		10.5	1.7	24.2		46.8			
LOS		B	A		B	A	C		D			
Approach Delay		17.5			6.9							
Approach LOS		B			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

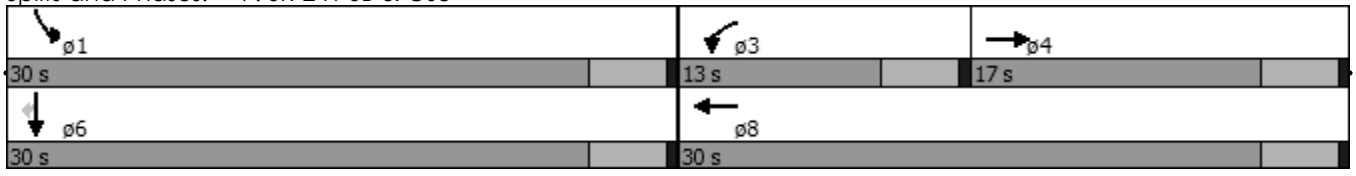


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	610	1030	120	1410	0	0	0	0	320	840	190
Future Volume (vph)	0	610	1030	120	1410	0	0	0	0	320	840	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			383									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	642	1084	126	1484	0	0	0	0	337	884	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		17.0		13.0	30.0					30.0	30.0	30.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		14.1	58.2	8.1	24.1					26.1	26.1	26.1
Actuated g/C Ratio		0.24	1.00	0.14	0.41					0.45	0.45	0.45
v/c Ratio		0.52	0.68	0.51	0.70					0.22	0.56	0.26
Control Delay		21.9	2.4	31.3	16.2					10.8	13.9	7.2
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.9	2.4	31.3	16.2					10.8	13.9	7.2
LOS		C	A	C	B					B	B	A
Approach Delay		9.7			17.4						12.2	
Approach LOS		A			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 13.0 Intersection LOS: B
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

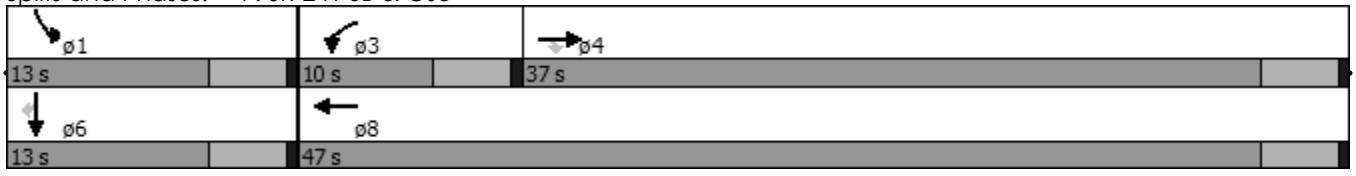


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	610	1030	120	1410	0	0	0	0	320	0	190
Future Volume (vph)	0	610	1030	120	1410	0	0	0	0	320	0	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Flt Permitted				0.950						0.950	0.960	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			703								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										45%		16%
Lane Group Flow (vph)	0	642	1084	126	1484	0	0	0	0	185	184	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		37.0	37.0	10.0	47.0					13.0	13.0	13.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		29.4	29.4	6.3	36.7					8.8	6.6	9.5
Actuated g/C Ratio		0.54	0.54	0.12	0.67					0.16	0.12	0.17
v/c Ratio		0.23	0.92	0.61	0.43					0.68	0.68	0.50
Control Delay		7.0	19.6	42.8	4.2					40.1	26.9	18.3
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.0	19.6	42.8	4.2					40.1	26.9	18.3
LOS		A	B	D	A					D	C	B
Approach Delay		14.9			7.2						28.8	
Approach LOS		B			A						C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 91.2%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

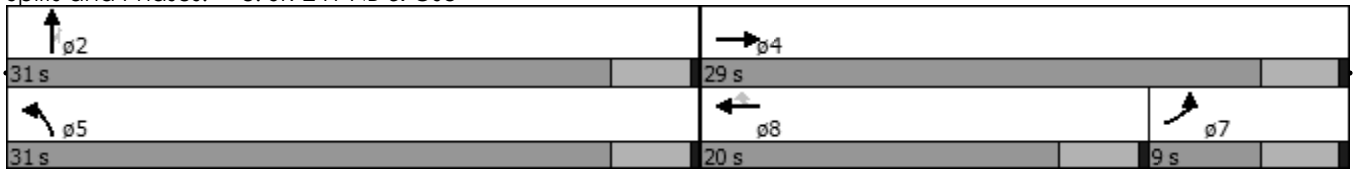


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	890	440	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	890	440	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	600	53	937	463	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.0	19.6			16.3	16.3	27.2	27.2	27.2			
Actuated g/C Ratio	0.09	0.36			0.30	0.30	0.50	0.50	0.50			
v/c Ratio	0.13	0.69			0.40	0.10	0.55	0.26	0.29			
Control Delay	25.8	18.0			17.0	2.4	12.0	9.3	7.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.8	18.0			17.0	2.4	12.0	9.3	7.1			
LOS	C	B			B	A	B	A	A			
Approach Delay		18.4			15.8			10.5				
Approach LOS		B			B			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

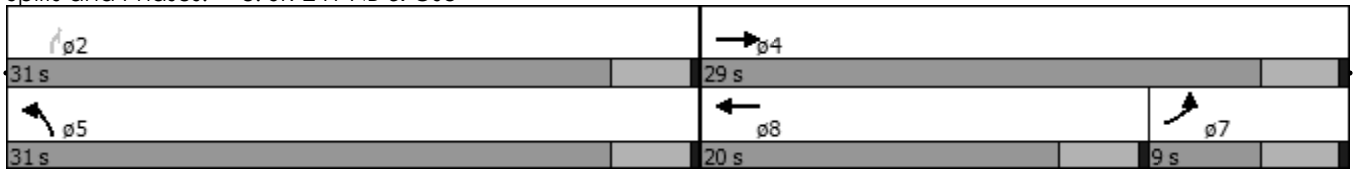


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	890	0	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	890	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	653	0	937	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.0	19.5			16.2		27.1		27.1			
Actuated g/C Ratio	0.09	0.36			0.30		0.50		0.50			
v/c Ratio	0.13	0.69			0.44		0.55		0.29			
Control Delay	25.7	18.1			16.8		11.9		7.0			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.7	18.1			16.8		11.9		7.0			
LOS	C	B			B		B		A			
Approach Delay		18.4			16.8							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 91.2%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

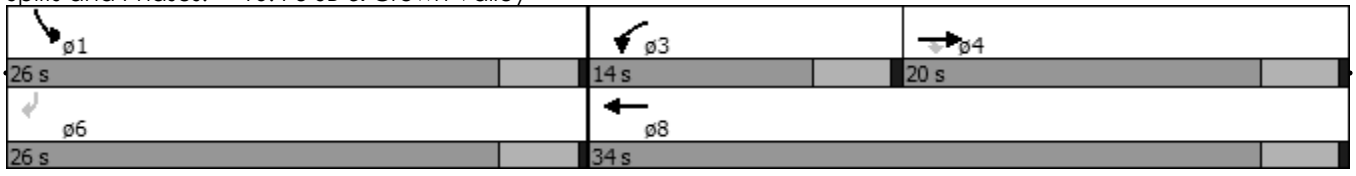


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1930	260	540	1260	0	0	0	0	1120	0	990
Future Volume (vph)	0	1930	260	540	1260	0	0	0	0	1120	0	990
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			274									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2032	274	568	1326	0	0	0	0	1179	0	1042
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		1.01	0.45	0.99	0.52					0.64		0.97
Control Delay		46.6	5.5	64.6	11.1					17.8		39.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		46.6	5.5	64.6	11.1					17.8		39.9
LOS		D	A	E	B					B		D
Approach Delay		41.7			27.1							
Approach LOS		D			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 32.7 Intersection LOS: C
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

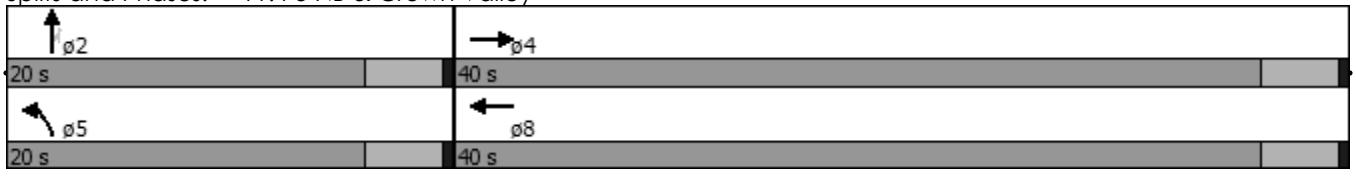


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2350	700	0	1590	1510	230	0	410	0	0	0
Future Volume (vph)	0	2350	700	0	1590	1510	230	0	410	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5962	1283	0	4575	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	5962	1260	0	4575	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39	567		357	794		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			23%			50%	10%		48%			
Lane Group Flow (vph)	0	2644	567	0	2469	794	218	231	225	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.74	0.45		0.86	0.58	0.49	0.57	0.54			
Control Delay		10.0	1.2		12.3	1.8	23.0	24.2	23.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.0	1.2		12.3	1.8	23.0	24.2	23.1			
LOS		B	A		B	A	C	C	C			
Approach Delay		8.5			9.8			23.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 61.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

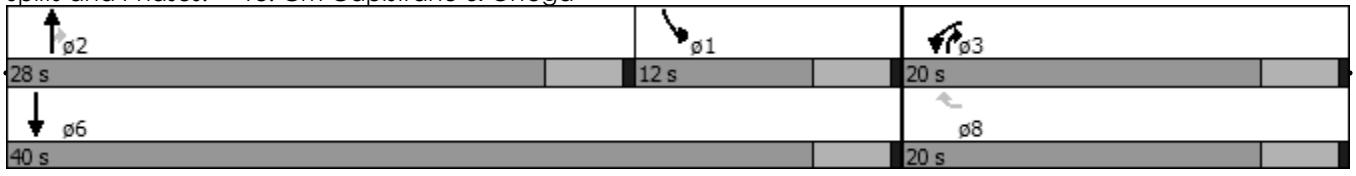


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	200	450	140	140	510
Future Volume (vph)	130	200	450	140	140	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211		147		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	211	474	147	147	537
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	28.0	20.0	12.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	26.7	36.6	7.7	36.1
Actuated g/C Ratio	0.18	0.18	0.50	0.68	0.14	0.67
v/c Ratio	0.42	0.48	0.51	0.13	0.58	0.43
Control Delay	23.3	7.3	14.0	0.8	34.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	7.3	14.0	0.8	34.1	6.2
LOS	C	A	B	A	C	A
Approach Delay	13.6		10.9			12.2
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 51.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

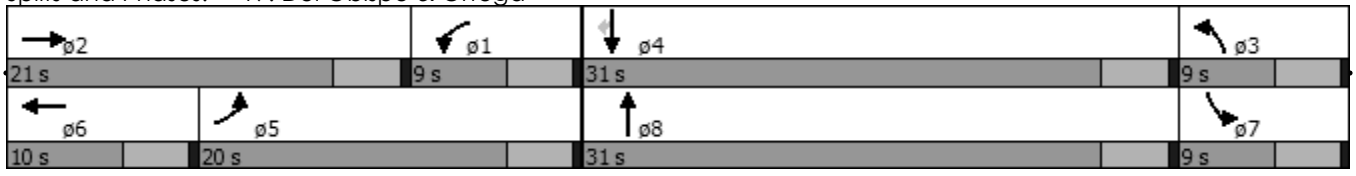


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	620	10	40	20	10	20	50	910	20	10	1120	470
Future Volume (vph)	620	10	40	20	10	20	50	910	20	10	1120	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			21			5				467
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	653	53	0	21	32	0	53	979	0	11	1179	495
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		9.0	31.0		9.0	31.0	31.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.2	15.7		6.5	5.8		5.0	34.7		5.0	27.2	27.2
Actuated g/C Ratio	0.24	0.25		0.10	0.09		0.08	0.55		0.08	0.43	0.43
v/c Ratio	0.79	0.12		0.12	0.18		0.38	0.35		0.08	0.77	0.54
Control Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	21.2	4.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	3.0	0.1
Total Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	24.3	4.8
LOS	C	B		C	B		D	A		C	C	A
Approach Delay		30.5			23.0			11.4			18.6	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 63.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 69.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

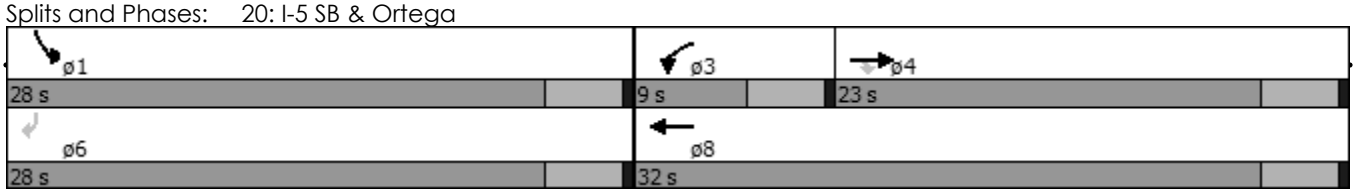


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1400	150	70	940	0	0	0	0	1020	0	660
Future Volume (vph)	0	1400	150	70	940	0	0	0	0	1020	0	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									128
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1474	158	74	989	0	0	0	0	1074	0	695
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	9.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.9	18.9	5.0	24.0					24.2		24.2
Actuated g/C Ratio		0.34	0.34	0.09	0.43					0.43		0.43
v/c Ratio		0.78	0.26	0.24	0.62					0.71		0.48
Control Delay		21.4	4.4	27.4	14.3					17.3		11.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.4	4.4	27.4	14.3					17.3		11.4
LOS		C	A	C	B					B		B
Approach Delay		19.7			15.2							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 16.8 Intersection LOS: B
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

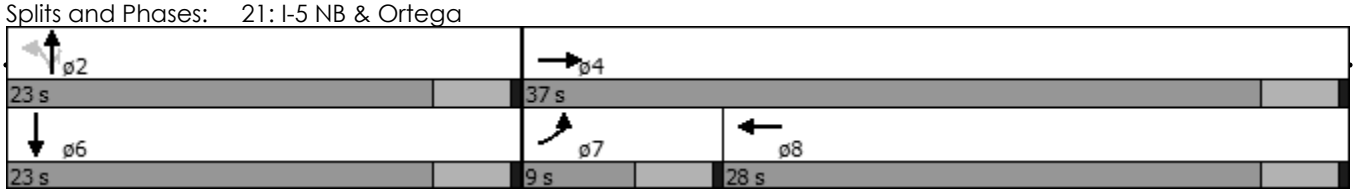


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1600	800	0	1770	10	230	10	270	0	0	10
Future Volume (vph)	10	1600	800	0	1770	10	230	10	270	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5400	1583	0	5529	0	0	1760	1583	0	1611	0
Flt Permitted	0.950							0.748				
Satd. Flow (perm)	1770	5400	1555	0	5529	0	0	1372	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		94	573		2			10	91		189	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			32%						10%			
Lane Group Flow (vph)	11	1953	573	0	1874	0	0	281	256	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	37.0			28.0		23.0	23.0	23.0		23.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	31.2	58.3		29.5			19.1	19.1		19.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.33	0.33		0.33	
v/c Ratio	0.07	0.67	0.37		0.67			0.62	0.44		0.02	
Control Delay	26.6	10.5	0.7		13.1			23.8	13.2		0.0	
Queue Delay	0.0	47.9	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.6	58.4	0.7		13.1			23.8	13.2		0.0	
LOS	C	E	A		B			C	B		A	
Approach Delay		45.2			13.1			18.7			0.0	
Approach LOS		D			B			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 30.1 Intersection LOS: C
Intersection Capacity Utilization 69.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

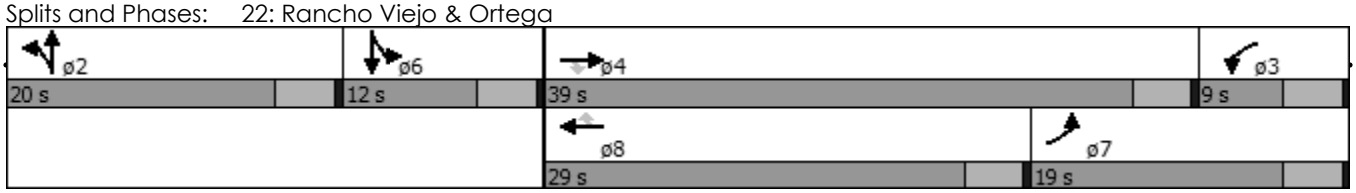


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	1390	390	60	1170	140	430	90	50	160	120	140
Future Volume (vph)	160	1390	390	60	1170	140	430	90	50	160	120	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1736	0	1770	3432	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1736	0	1770	3432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			368			177		31			147	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	168	1463	411	63	1232	147	453	148	0	151	290	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	19.0	39.0	39.0	9.0	29.0	29.0	20.0	20.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	13.8	34.6	34.6	5.0	23.8	23.8	16.1	16.1		8.0	8.0	
Actuated g/C Ratio	0.18	0.44	0.44	0.06	0.31	0.31	0.21	0.21		0.10	0.10	
v/c Ratio	0.54	0.90	0.47	0.55	0.73	0.24	0.62	0.39		0.83	0.60	
Control Delay	36.2	29.7	4.5	56.5	27.3	3.3	33.0	25.2		71.4	22.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	36.2	29.7	4.5	56.5	27.3	3.3	33.0	25.2		71.4	22.6	
LOS	D	C	A	E	C	A	C	C		E	C	
Approach Delay		25.2			26.2			31.1			39.3	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 77.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 27.6 Intersection LOS: C
Intersection Capacity Utilization 77.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

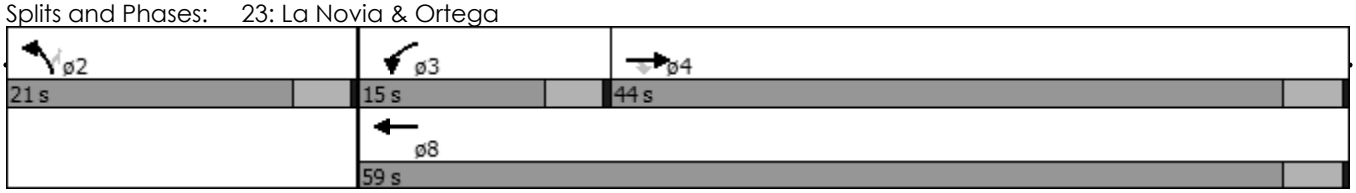


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1470	230	180	1180	230	120
Future Volume (vph)	1470	230	180	1180	230	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1474	1770	3471	3433	1518
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		155				126
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1547	242	189	1242	242	126
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	44.0	44.0	15.0	59.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	38.9	38.9	10.6	53.6	17.0	17.0
Actuated g/C Ratio	0.49	0.49	0.13	0.68	0.22	0.22
v/c Ratio	0.90	0.30	0.79	0.53	0.33	0.30
Control Delay	27.0	5.5	58.1	7.1	27.8	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	5.5	58.1	7.1	27.8	7.5
LOS	C	A	E	A	C	A
Approach Delay	24.1			13.9	20.9	
Approach LOS	C			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 78.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 19.7 Intersection LOS: B
Intersection Capacity Utilization 73.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

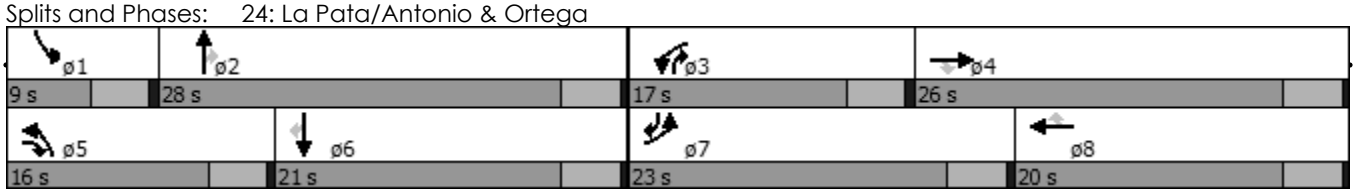


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	650	570	270	140	170	10	430	850	230	10	960	630
Future Volume (vph)	650	570	270	140	170	10	430	850	230	10	960	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1518	1770	3654	1518	3539	5588	1518	1770	5588	2948
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			232			123			357
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	684	600	284	147	179	11	453	895	242	11	1011	663
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	23.0	26.0	16.0	17.0	20.0	20.0	16.0	28.0	17.0	9.0	21.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.2	18.4	30.3	10.7	10.9	10.9	11.9	31.3	42.0	5.0	17.1	35.3
Actuated g/C Ratio	0.25	0.25	0.41	0.14	0.15	0.15	0.16	0.42	0.57	0.07	0.23	0.48
v/c Ratio	0.79	0.66	0.41	0.58	0.33	0.03	0.80	0.38	0.26	0.09	0.78	0.40
Control Delay	34.6	29.2	10.1	39.8	29.9	0.1	43.5	16.7	4.8	36.6	33.0	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	29.2	10.1	39.8	29.9	0.1	43.5	16.7	4.8	36.6	33.0	5.6
LOS	C	C	B	D	C	A	D	B	A	D	C	A
Approach Delay		28.1			33.3			22.5			22.2	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 74.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 24.8		Intersection LOS: C	
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 24: La Pata/Antonio & Ortega

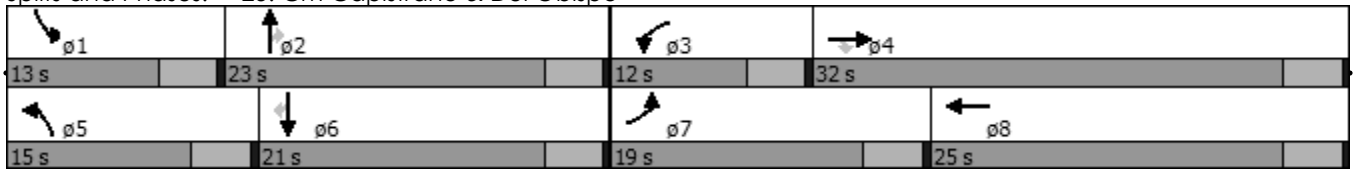


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Future Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3509	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3509	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			263		5				177			303
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	663	263	168	832	0	379	221	158	84	158	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	32.0	32.0	12.0	25.0		15.0	23.0	23.0	13.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.2	27.2	27.2	7.7	20.7		10.9	21.9	21.9	8.0	17.0	17.0
Actuated g/C Ratio	0.18	0.35	0.35	0.10	0.26		0.14	0.28	0.28	0.10	0.22	0.22
v/c Ratio	0.82	0.54	0.38	0.50	0.90		0.80	0.43	0.29	0.46	0.39	0.75
Control Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
LOS	D	C	A	D	D		D	C	A	D	C	B
Approach Delay		25.6			42.2			33.2			24.2	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 78.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 31.5 Intersection LOS: C
Intersection Capacity Utilization 72.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 25: Cm Capistrano & Del Obispo

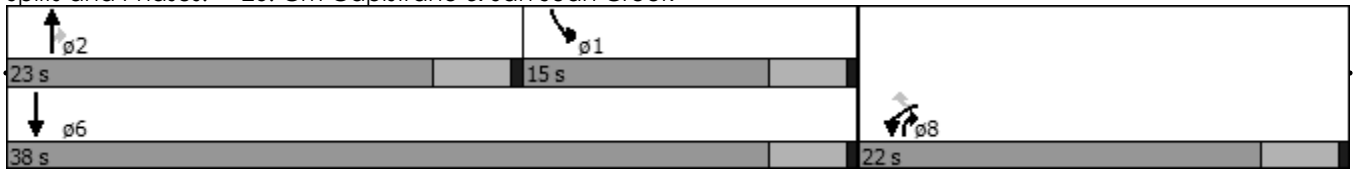


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	480	400	430	350	320	560
Future Volume (vph)	480	400	430	350	320	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3329	1441	3539	1583	3433	3539
Flt Permitted	0.962				0.950	
Satd. Flow (perm)	3329	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	57	290		70		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		31%				
Lane Group Flow (vph)	636	290	453	368	337	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.4	15.4	19.1	34.4	11.0	34.1
Actuated g/C Ratio	0.27	0.27	0.33	0.60	0.19	0.59
v/c Ratio	0.68	0.50	0.39	0.38	0.51	0.28
Control Delay	21.1	5.8	16.5	4.6	24.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	5.8	16.5	4.6	24.6	6.6
LOS	C	A	B	A	C	A
Approach Delay	16.3		11.2			13.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 13.6 Intersection LOS: B
Intersection Capacity Utilization 50.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

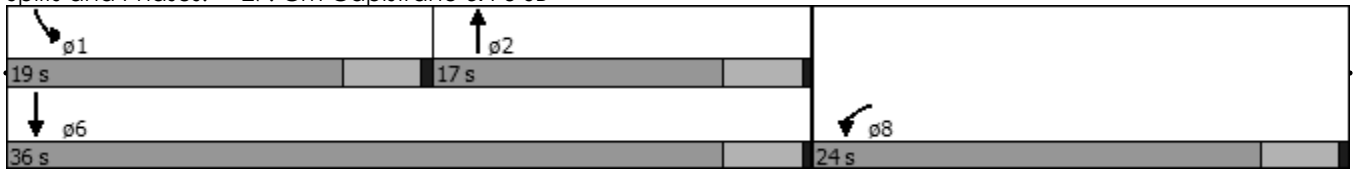


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	750	380	440	60	490	550
Future Volume (vph)	750	380	440	60	490	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		400		63		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	789	400	463	63	516	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		17.0		19.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	57.6	15.0	57.6	13.1	32.1
Actuated g/C Ratio	0.30	1.00	0.26	1.00	0.23	0.56
v/c Ratio	0.76	0.25	0.50	0.04	0.66	0.29
Control Delay	23.4	0.4	21.6	0.1	24.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	0.4	21.6	0.1	24.9	7.7
LOS	C	A	C	A	C	A
Approach Delay	15.6		19.1			15.8
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 57.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

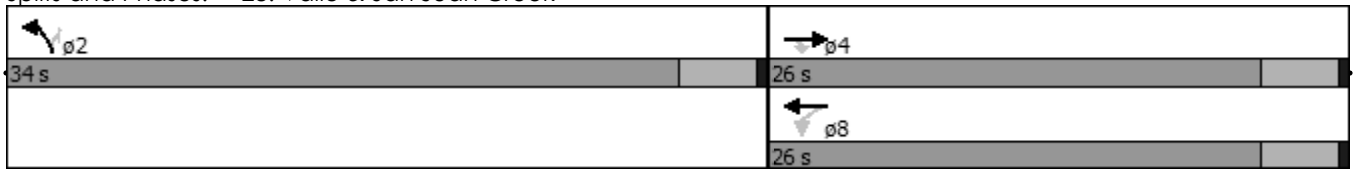


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	350	320	70	510	460	220
Future Volume (vph)	350	320	70	510	460	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.778	0.950	
Satd. Flow (perm)	1863	1493	0	2754	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		337				232
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	337	0	611	484	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	26.0	26.0	26.0	26.0	34.0	34.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.7	16.7		16.7	30.2	30.2
Actuated g/C Ratio	0.30	0.30		0.30	0.55	0.55
v/c Ratio	0.65	0.49		0.73	0.50	0.24
Control Delay	22.2	4.7		22.5	10.9	2.1
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	22.2	4.7		22.5	10.9	2.1
LOS	C	A		C	B	A
Approach Delay	13.8			22.5	8.0	
Approach LOS	B			C	A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

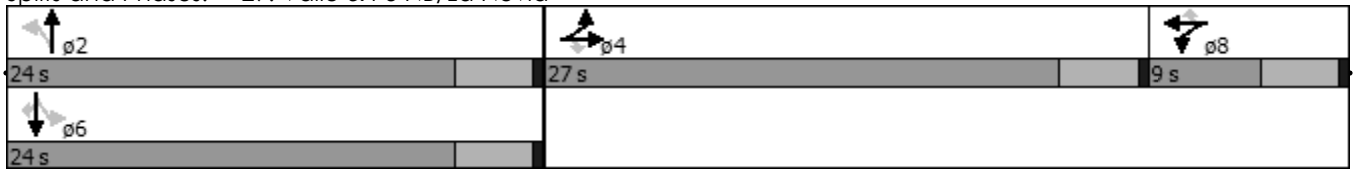


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Future Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1785	1583	0	1796	1583	1770	1802	0	0	1833	1583
Flt Permitted		0.958			0.964		0.560				0.844	
Satd. Flow (perm)	0	1785	1583	0	1796	1583	1043	1802	0	0	1572	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			95		17				200
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	453	84	0	43	95	168	200	0	0	252	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	27.0	27.0	27.0	9.0	9.0	9.0	24.0	24.0		24.0	24.0	24.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.8	17.8		5.1	5.1	20.6	20.6			20.6	20.6
Actuated g/C Ratio		0.33	0.33		0.10	0.10	0.39	0.39			0.39	0.39
v/c Ratio		0.76	0.14		0.25	0.40	0.42	0.28			0.42	0.27
Control Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
LOS		C	A		C	B	B	B			B	A
Approach Delay		22.0			17.8			16.4			11.3	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 66.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia

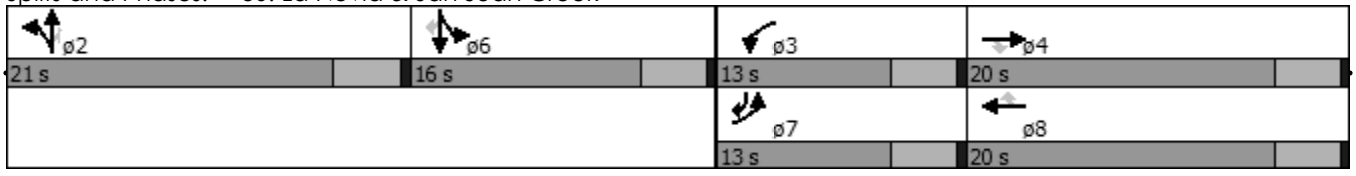


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Future Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1484	1770	1863	1484	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			140			263			140			263
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	105	11	105	105	263	95	179	11	211	179	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	13.0	20.0	20.0	13.0	20.0	20.0	21.0	21.0	21.0	16.0	16.0	13.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.6	11.9	11.9	8.0	9.2	9.2	17.1	17.1	17.1	12.0	12.0	24.7
Actuated g/C Ratio	0.14	0.19	0.19	0.13	0.15	0.15	0.27	0.27	0.27	0.19	0.19	0.39
v/c Ratio	0.65	0.30	0.03	0.46	0.39	0.60	0.20	0.36	0.02	0.62	0.50	0.34
Control Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
LOS	D	C	A	C	C	A	C	C	A	C	C	A
Approach Delay		34.0			19.2			20.6			20.6	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 63			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

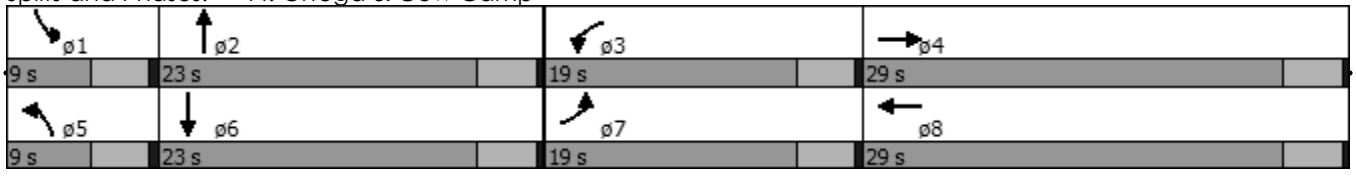


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	570	390	10	170	920	100	10	640	50	30	90	470
Future Volume (vph)	570	390	10	170	920	100	10	640	50	30	90	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			16			10			413	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	600	422	0	179	1073	0	11	727	0	32	590	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	19.0	29.0		19.0	29.0		9.0	23.0		9.0	23.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	14.9	27.5		12.0	24.6		5.0	19.1		5.0	20.8	
Actuated g/C Ratio	0.20	0.37		0.16	0.33		0.07	0.26		0.07	0.28	
v/c Ratio	0.84	0.31		0.62	0.87		0.09	0.76		0.27	0.50	
Control Delay	42.4	18.5		39.4	33.5		36.6	32.3		40.6	8.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	42.4	18.5		39.4	33.5		36.6	32.3		40.6	8.6	
LOS	D	B		D	C		D	C		D	A	
Approach Delay		32.5			34.4			32.4			10.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 80.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp



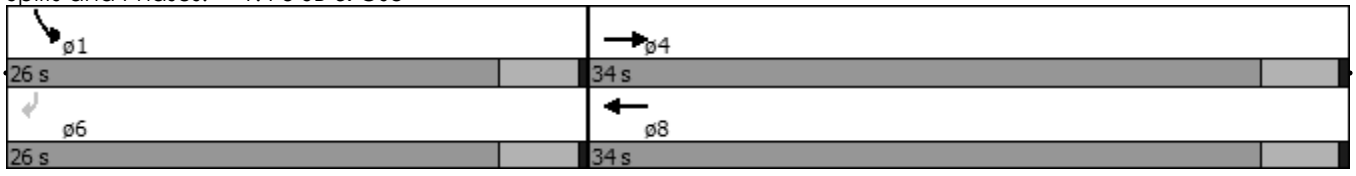
HCM Signalized Intersection Data Set 3
Alternative Existing Baseline –
Project Alternative 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Future Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			537			684						25
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1011	537	0	1589	684	0	0	0	600	0	295
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		34.0			34.0					26.0		26.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		26.2	56.3		26.2	56.3				22.1		22.1
Actuated g/C Ratio		0.47	1.00		0.47	1.00				0.39		0.39
v/c Ratio		0.43	0.35		0.67	0.43				0.45		0.27
Control Delay		10.5	0.6		13.2	0.9				14.7		12.3
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		10.5	0.6		13.2	0.9				14.7		12.3
LOS		B	A		B	A				B		B
Approach Delay		7.1			9.5							
Approach LOS		A			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 52.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

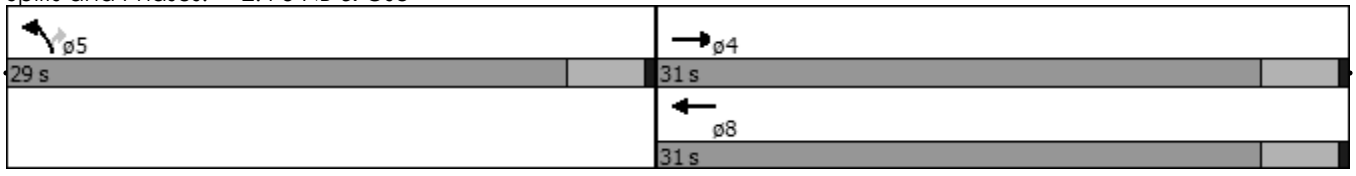


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1120	410	0	1790	1380	370	0	430	0	0	0
Future Volume (vph)	0	1120	410	0	1790	1380	370	0	430	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			432			1091			28			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1179	432	0	1884	1453	389	0	453	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		31.0			31.0		29.0		29.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		26.1	53.4		26.1	53.4	19.2		19.2			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.36		0.36			
v/c Ratio		0.48	0.28		0.76	0.92	0.32		0.77			
Control Delay		10.7	0.5		14.6	12.3	12.9		24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		10.7	0.5		14.6	12.3	12.9		24.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.0			13.6							
Approach LOS		A			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 54.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

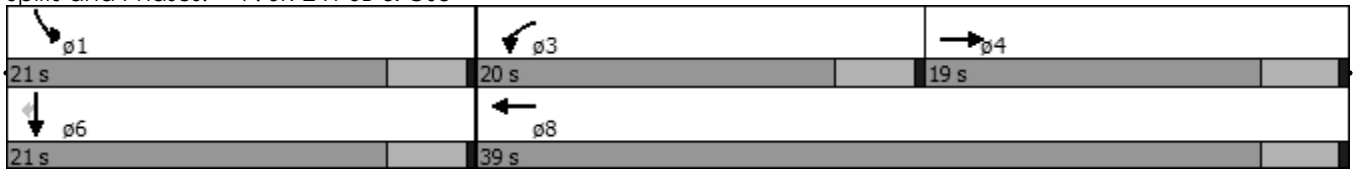


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰↰	↑↑	↱
Traffic Volume (vph)	0	780	880	230	1990	0	0	0	0	40	480	60
Future Volume (vph)	0	780	880	230	1990	0	0	0	0	40	480	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	926	242	2095	0	0	0	0	42	505	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		20.0	39.0					21.0	21.0	21.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.8	58.5	12.7	33.4					10.2	17.0	17.0
Actuated g/C Ratio		0.29	1.00	0.22	0.57					0.17	0.29	0.29
v/c Ratio		0.56	0.58	0.63	0.72					0.07	0.49	0.12
Control Delay		20.1	1.6	28.5	10.8					18.2	19.6	3.1
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		20.1	1.6	28.5	10.8					18.2	19.6	3.1
LOS		C	A	C	B					B	B	A
Approach Delay		10.3			12.7						17.8	
Approach LOS		B			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 69.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

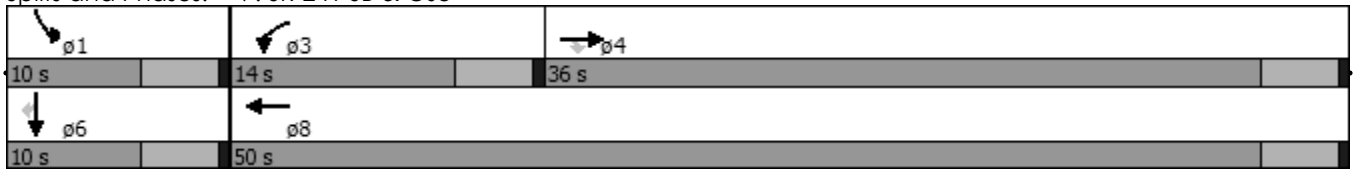


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	780	880	230	1990	0	0	0	0	40	0	60
Future Volume (vph)	0	780	880	230	1990	0	0	0	0	40	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Flt Permitted				0.950						0.950	0.993	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			482								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										13%		46%
Lane Group Flow (vph)	0	821	926	242	2095	0	0	0	0	37	34	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		36.0	36.0	14.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		27.9	27.9	9.8	41.8					5.9	2.2	6.1
Actuated g/C Ratio		0.50	0.50	0.18	0.75					0.11	0.04	0.11
v/c Ratio		0.32	0.90	0.78	0.55					0.21	0.23	0.14
Control Delay		8.5	19.7	44.4	3.6					27.9	3.8	1.3
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		8.5	19.7	44.4	3.6					27.9	3.8	1.3
LOS		A	B	D	A					C	A	A
Approach Delay		14.4			7.8						11.5	
Approach LOS		B			A						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 81.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

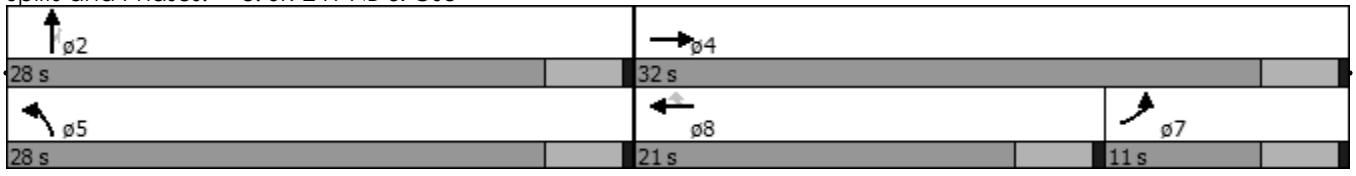


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	1020	800	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	1020	800	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1221	337	1074	842	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	11.0	32.0			21.0	21.0	28.0	28.0	28.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	7.0	28.0			17.0	17.0	24.0	24.0	24.0			
Actuated g/C Ratio	0.12	0.47			0.28	0.28	0.40	0.40	0.40			
v/c Ratio	0.76	0.34			0.85	0.68	0.78	0.60	0.11			
Control Delay	40.5	10.9			27.6	22.0	20.8	16.3	2.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	40.5	10.9			27.6	22.0	20.8	16.3	2.9			
LOS	D	B			C	C	C	B	A			
Approach Delay		21.2			26.4			18.2				
Approach LOS		C			C			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 69.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

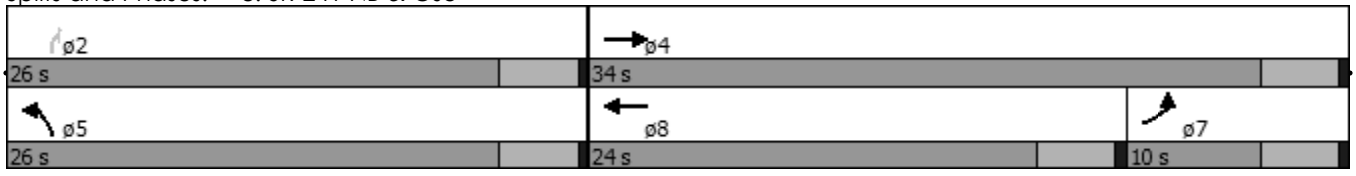


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	1020	0	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	1020	0	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					124				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1558	0	1074	0	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	10.0	34.0			24.0		26.0		26.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	6.0	30.0			20.0		22.0		22.0			
Actuated g/C Ratio	0.10	0.50			0.33		0.37		0.37			
v/c Ratio	0.89	0.32			0.91		0.85		0.12			
Control Delay	57.5	9.6			27.6		26.2		3.2			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	57.5	9.6			27.6		26.2		3.2			
LOS	E	A			C		C		A			
Approach Delay		26.3			27.6							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 81.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

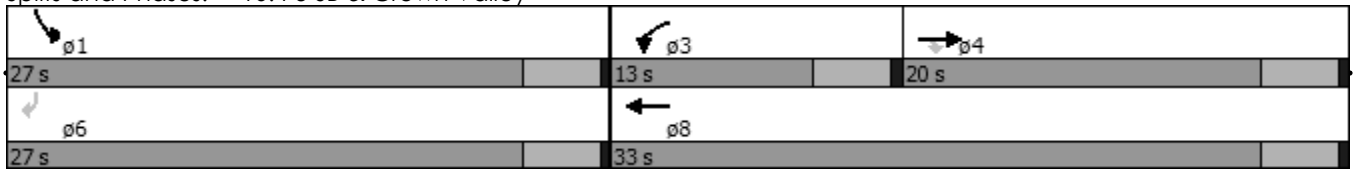


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1410	210	360	1220	0	0	0	0	1290	0	790
Future Volume (vph)	0	1410	210	360	1220	0	0	0	0	1290	0	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	221	379	1284	0	0	0	0	1358	0	832
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.74	0.39	0.74	0.52					0.71		0.74
Control Delay		22.7	5.3	34.9	11.7					18.2		18.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		22.7	5.3	34.9	11.7					18.2		18.9
LOS		C	A	C	B					B		B
Approach Delay		20.4			17.0							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 18.6 Intersection LOS: B
Intersection Capacity Utilization 61.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

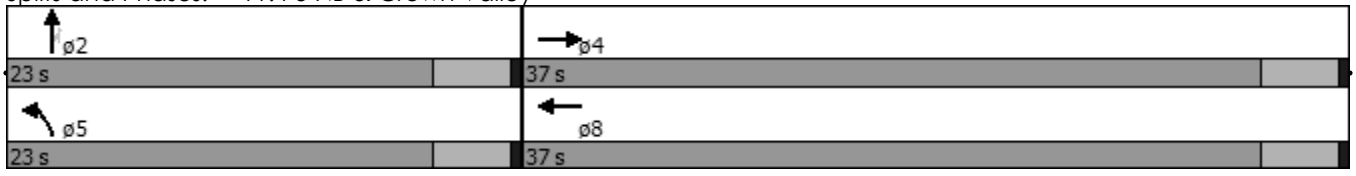


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	590	0	1400	1210	190	0	490	0	0	0
Future Volume (vph)	0	2100	590	0	1400	1210	190	0	490	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5977	1283	0	4590	1362	1681	1454	1504	0	0	0
Flt Permitted							0.950	0.996				
Satd. Flow (perm)	0	5977	1260	0	4590	1362	1681	1454	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26	503		289	637		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			19%			50%	10%		48%			
Lane Group Flow (vph)	0	2329	503	0	2111	637	180	268	268	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		37.0			37.0		23.0	23.0	23.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		33.0	60.0		33.0	60.0	19.0	19.0	19.0			
Actuated g/C Ratio		0.55	1.00		0.55	1.00	0.32	0.32	0.32			
v/c Ratio		0.71	0.40		0.80	0.47	0.34	0.57	0.55			
Control Delay		11.3	0.9		12.0	1.2	17.9	21.5	20.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		11.3	0.9		12.0	1.2	17.9	21.5	20.9			
LOS		B	A		B	A	B	C	C			
Approach Delay		9.5			9.5			20.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

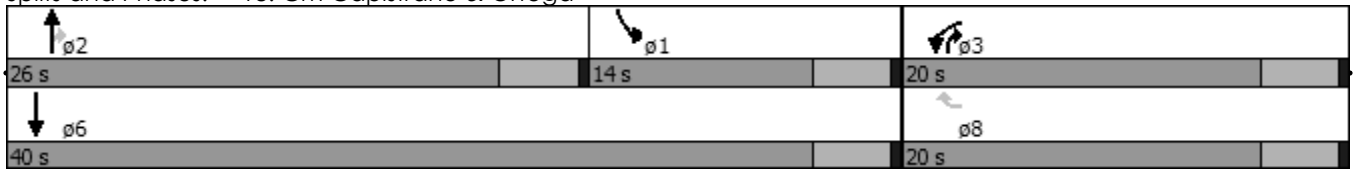


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	180	190	360	120	130	540
Future Volume (vph)	180	190	360	120	130	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		200		126		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	200	379	126	137	568
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	26.0	20.0	14.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.1	11.1	25.1	36.2	9.2	36.1
Actuated g/C Ratio	0.20	0.20	0.45	0.66	0.17	0.65
v/c Ratio	0.53	0.44	0.45	0.12	0.47	0.47
Control Delay	25.4	6.6	14.9	1.0	27.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	6.6	14.9	1.0	27.1	7.0
LOS	C	A	B	A	C	A
Approach Delay	15.7		11.5			10.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 12.2 Intersection LOS: B
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

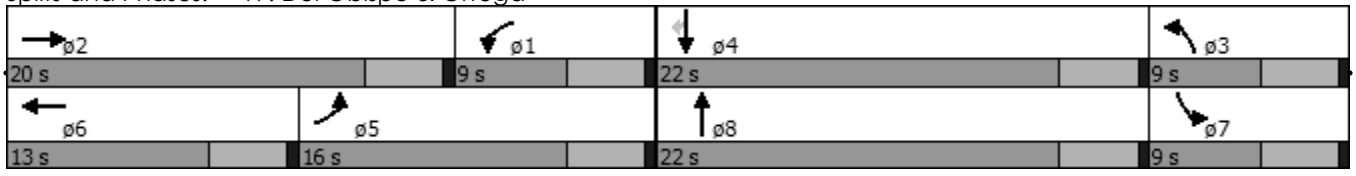


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	10	40	10	10	10	30	980	10	10	810	620
Future Volume (vph)	380	10	40	10	10	10	30	980	10	10	810	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			11			3				653
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	400	53	0	11	22	0	32	1043	0	11	853	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	16.0	20.0		9.0	13.0		9.0	22.0		9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	10.2	9.6		6.0	6.0		5.1	25.9		5.1	18.2	18.2
Actuated g/C Ratio	0.21	0.20		0.13	0.13		0.11	0.55		0.11	0.38	0.38
v/c Ratio	0.54	0.15		0.05	0.10		0.17	0.38		0.06	0.63	0.66
Control Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.9	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.9	5.4
LOS	C	B		B	B		C	A		C	B	A
Approach Delay		19.1			17.6			9.2			11.5	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 47.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

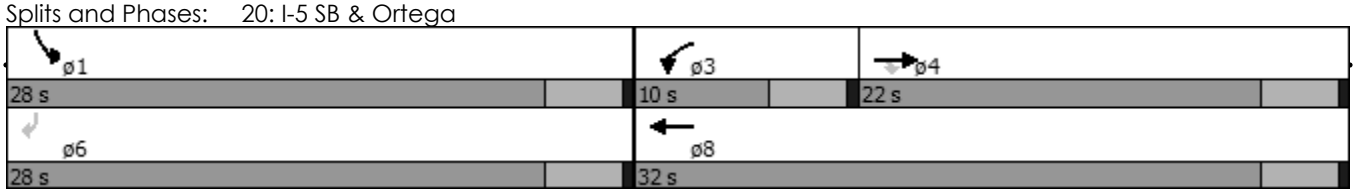


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1230	150	170	880	0	0	0	0	920	0	560
Future Volume (vph)	0	1230	150	170	880	0	0	0	0	920	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									155
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1295	158	179	926	0	0	0	0	968	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		22.0	22.0	10.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.0	18.0	6.0	25.7					24.2		24.2
Actuated g/C Ratio		0.31	0.31	0.10	0.44					0.42		0.42
v/c Ratio		0.75	0.27	0.49	0.56					0.66		0.42
Control Delay		21.6	4.7	30.4	13.2					17.0		10.2
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.6	4.7	30.4	13.2					17.0		10.2
LOS		C	A	C	B					B		B
Approach Delay		19.8			16.0							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 64.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

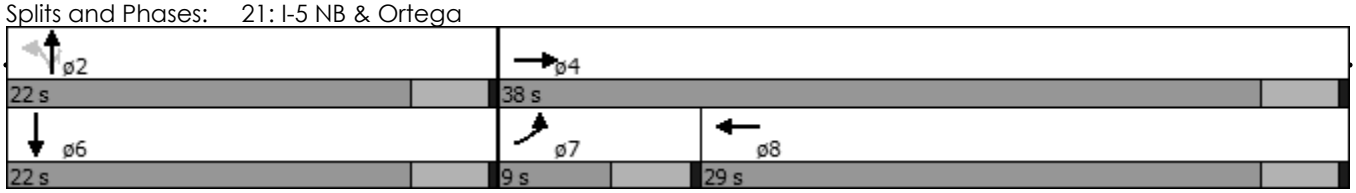


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1480	680	0	2190	10	270	10	350	0	0	10
Future Volume (vph)	10	1480	680	0	2190	10	270	10	350	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5419	1583	0	5529	0	0	1751	1583	0	1611	0
Flt Permitted	0.950							0.757				
Satd. Flow (perm)	1770	5419	1555	0	5529	0	0	1379	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76	508		1			15	91		182	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			29%						14%			
Lane Group Flow (vph)	11	1766	508	0	2316	0	0	347	316	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	38.0			29.0		22.0	22.0	22.0		22.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.2	56.3		28.5			18.1	18.1		18.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.32	0.32		0.32	
v/c Ratio	0.07	0.60	0.33		0.83			0.77	0.55		0.02	
Control Delay	26.4	9.4	0.6		16.7			31.9	16.3		0.0	
Queue Delay	0.0	4.6	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.4	14.0	0.6		16.7			31.9	16.3		0.0	
LOS	C	B	A		B			C	B		A	
Approach Delay		11.1			16.7			24.5			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 78.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

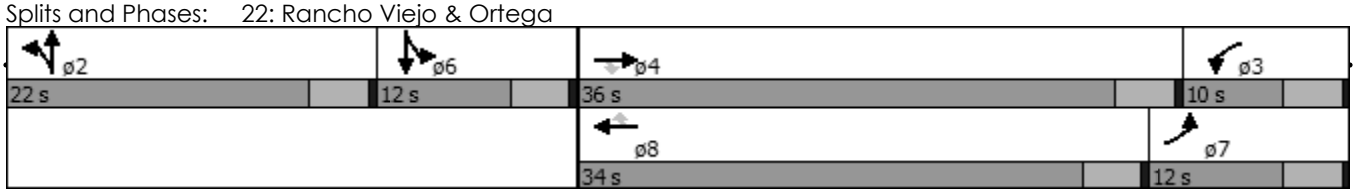


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1240	440	70	1800	240	280	150	40	170	150	100
Future Volume (vph)	140	1240	440	70	1800	240	280	150	40	170	150	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1787	0	1770	3507	0
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1787	0	1770	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			436			253		15			105	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										17%		
Lane Group Flow (vph)	147	1305	463	74	1895	253	295	200	0	149	293	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	12.0	36.0	36.0	10.0	34.0	34.0	22.0	22.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	8.0	34.0	34.0	5.9	30.0	30.0	18.0	18.0		8.0	8.0	
Actuated g/C Ratio	0.10	0.42	0.42	0.07	0.38	0.38	0.22	0.22		0.10	0.10	
v/c Ratio	0.83	0.84	0.52	0.57	0.92	0.34	0.37	0.48		0.84	0.66	
Control Delay	72.7	27.9	4.7	54.1	33.0	3.8	27.8	29.5		74.4	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	72.7	27.9	4.7	54.1	33.0	3.8	27.8	29.5		74.4	29.8	
LOS	E	C	A	D	C	A	C	C		E	C	
Approach Delay		25.7			30.4			28.5			44.8	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 29.7 Intersection LOS: C
Intersection Capacity Utilization 77.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

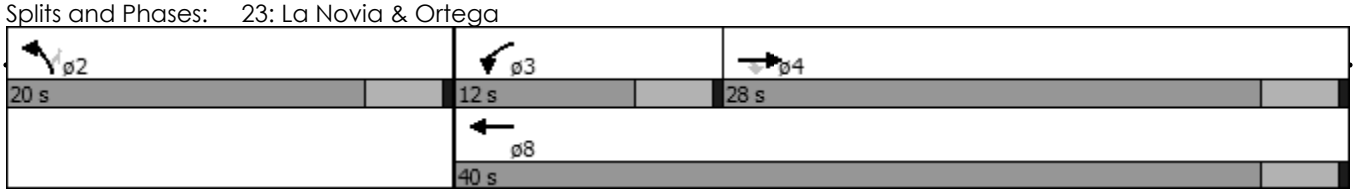


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1060	260	160	1850	300	150
Future Volume (vph)	1060	260	160	1850	300	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1493	1770	3471	3433	1529
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		271				158
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1116	274	168	1947	316	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	28.0	28.0	12.0	40.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	24.2	24.2	7.8	36.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40	0.13	0.60	0.27	0.27
v/c Ratio	0.80	0.36	0.73	0.94	0.35	0.30
Control Delay	21.4	3.4	45.9	22.0	19.1	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	3.4	45.9	22.0	19.1	5.4
LOS	C	A	D	C	B	A
Approach Delay	17.9			23.9	14.5	
Approach LOS	B			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 20.7 Intersection LOS: C
Intersection Capacity Utilization 71.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

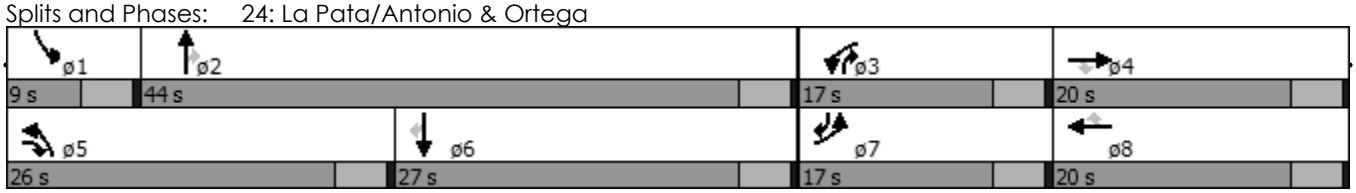


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	140	670	250	390	20	630	1020	140	10	1300	800
Future Volume (vph)	420	140	670	250	390	20	630	1020	140	10	1300	800
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			147			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	442	147	705	263	411	21	663	1074	147	11	1368	842
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	26.0	17.0	20.0	20.0	26.0	44.0	17.0	9.0	27.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.0	14.3	36.3	13.0	14.3	14.3	22.0	47.3	60.3	5.0	23.0	36.0
Actuated g/C Ratio	0.15	0.16	0.41	0.15	0.16	0.16	0.25	0.54	0.68	0.06	0.26	0.41
v/c Ratio	0.85	0.25	1.05	1.01	0.70	0.06	0.75	0.36	0.13	0.11	0.94	0.65
Control Delay	53.7	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	46.0	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	46.0	18.9
LOS	D	C	E	F	D	A	D	B	A	D	D	B
Approach Delay		61.0			62.2			20.6			35.7	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 39.4 Intersection LOS: D
Intersection Capacity Utilization 92.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

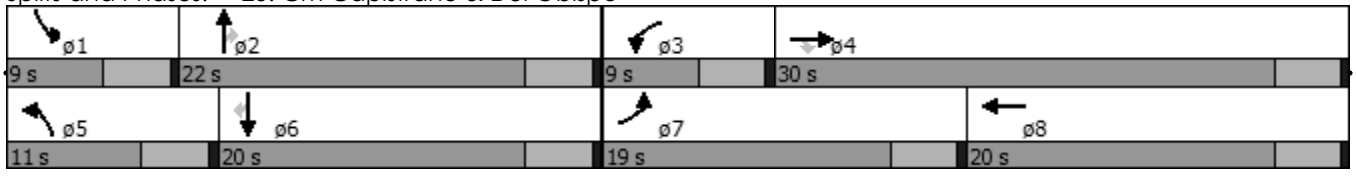


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Future Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3525	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1524	3433	3525	0	3433	1863	1524	1770	1863	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284		2				203			386
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	842	284	74	643	0	326	221	53	42	211	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	30.0	30.0	9.0	20.0		11.0	22.0	22.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	27.3	27.3	5.0	15.4		7.0	21.6	21.6	5.0	16.0	16.0
Actuated g/C Ratio	0.22	0.39	0.39	0.07	0.22		0.10	0.31	0.31	0.07	0.23	0.23
v/c Ratio	0.99	0.61	0.37	0.30	0.82		0.94	0.38	0.09	0.33	0.49	0.70
Control Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
LOS	E	B	A	C	D		E	C	A	D	C	B
Approach Delay		30.6			35.6			46.6			18.1	
Approach LOS		C			D			D			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 69.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 31.9		Intersection LOS: C	
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

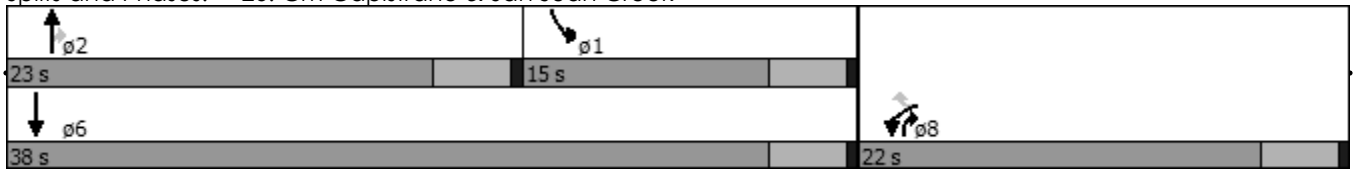


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	430	460	310	290	270	460
Future Volume (vph)	430	460	310	290	270	460
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3282	1441	3539	1583	3433	3539
Flt Permitted	0.966				0.950	
Satd. Flow (perm)	3282	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	114	295		105		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		39%				
Lane Group Flow (vph)	642	295	326	305	284	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.9	14.9	19.1	34.0	11.0	34.1
Actuated g/C Ratio	0.26	0.26	0.33	0.60	0.19	0.60
v/c Ratio	0.68	0.51	0.28	0.32	0.43	0.23
Control Delay	19.3	5.9	15.4	3.4	23.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.3	5.9	15.4	3.4	23.3	6.2
LOS	B	A	B	A	C	A
Approach Delay	15.1		9.6			12.5
Approach LOS	B		A			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 48.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

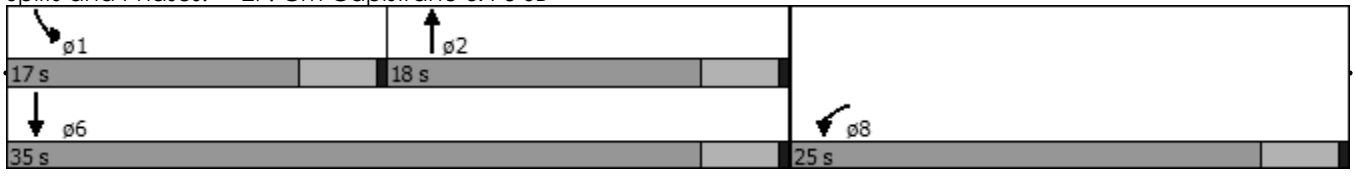


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	690	240	360	20	440	450
Future Volume (vph)	690	240	360	20	440	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		253		21		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	726	253	379	21	463	474
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	25.0		18.0		17.0	35.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	16.6	55.7	15.5	55.7	11.6	31.1
Actuated g/C Ratio	0.30	1.00	0.28	1.00	0.21	0.56
v/c Ratio	0.71	0.16	0.39	0.01	0.65	0.24
Control Delay	21.6	0.2	19.0	0.0	25.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	0.2	19.0	0.0	25.2	7.3
LOS	C	A	B	A	C	A
Approach Delay	16.0		18.0			16.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 52.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

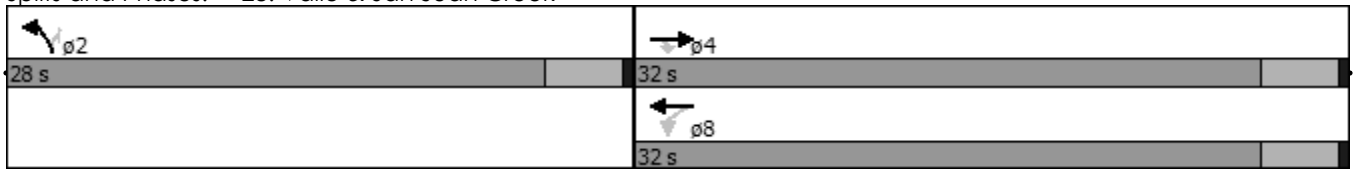


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	330	230	150	550	340	100
Future Volume (vph)	330	230	150	550	340	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.720	0.950	
Satd. Flow (perm)	1863	1493	0	2548	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		242				105
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	347	242	0	737	358	105
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	19.9	19.9		19.9	24.2	24.2
Actuated g/C Ratio	0.38	0.38		0.38	0.46	0.46
v/c Ratio	0.49	0.34		0.76	0.44	0.13
Control Delay	14.4	3.1		19.4	13.0	3.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	14.4	3.1		19.4	13.0	3.4
LOS	B	A		B	B	A
Approach Delay	9.8			19.4	10.8	
Approach LOS	A			B	B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 52.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

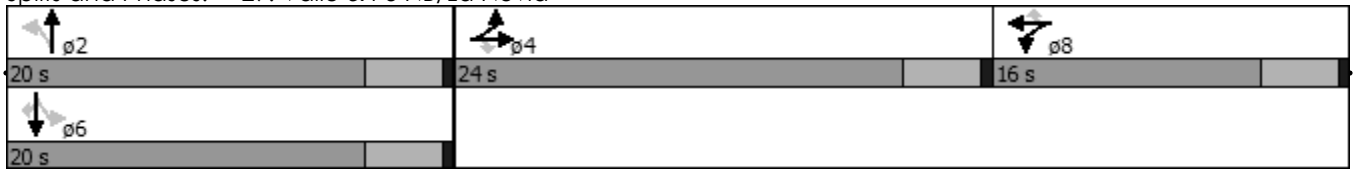


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Future Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1781	1583	0	1857	1583	1770	1814	0	0	1857	1583
Flt Permitted		0.956			0.997		0.620				0.987	
Satd. Flow (perm)	0	1781	1583	0	1857	1583	1155	1814	0	0	1839	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			91		11				221
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	358	74	0	179	53	74	85	0	0	200	221
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	16.0	16.0	16.0	20.0	20.0		20.0	20.0	20.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		14.9	14.9		9.8	9.8	16.9	16.9			16.9	16.9
Actuated g/C Ratio		0.29	0.29		0.19	0.19	0.33	0.33			0.33	0.33
v/c Ratio		0.69	0.14		0.50	0.14	0.19	0.14			0.33	0.33
Control Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
LOS		C	A		C	A	B	B			B	A
Approach Delay		20.9			20.8			16.4			11.2	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 51
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia

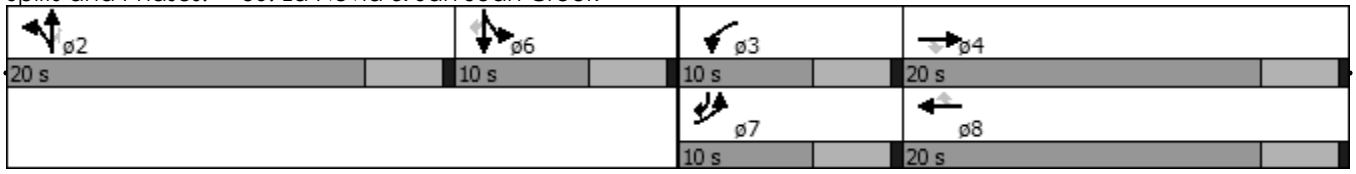


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Future Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			295			164			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	126	95	53	232	295	126	189	42	158	158	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.3	16.3	5.9	12.1	12.1	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.10	0.22	0.22	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.95	0.23	0.16	0.28	0.58	0.53	0.25	0.36	0.08	0.84	0.79	0.46
Control Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
LOS	F	B	A	C	C	A	B	B	A	E	E	A
Approach Delay		44.4			16.4			16.7			33.6	
Approach LOS		D			B			B			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

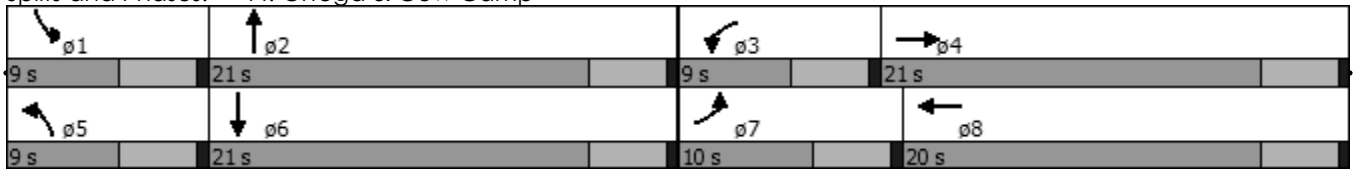


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	830	10	30	280	20	10	50	180	120	570	480
Future Volume (vph)	330	830	10	30	280	20	10	50	180	120	570	480
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3680	0	1770	3202	0	1770	3414	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3680	0	1770	3202	0	1770	3414	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			13			189			352	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	885	0	32	316	0	11	242	0	126	1105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	10.0	21.0		9.0	20.0		9.0	21.0		9.0	21.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	6.0	18.0		5.0	11.3		5.0	17.1		5.0	24.5	
Actuated g/C Ratio	0.11	0.32		0.09	0.20		0.09	0.31		0.09	0.44	
v/c Ratio	0.90	0.73		0.20	0.42		0.07	0.22		0.79	0.65	
Control Delay	56.8	22.6		28.2	19.8		26.1	5.4		63.5	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	56.8	22.6		28.2	19.8		26.1	5.4		63.5	12.6	
LOS	E	C		C	B		C	A		E	B	
Approach Delay		32.2			20.5			6.3			17.8	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp

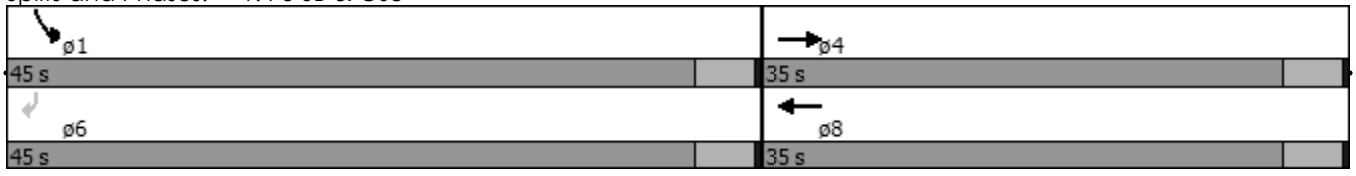


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1530	520	0	1410	470	0	0	0	1300	0	270
Future Volume (vph)	0	1530	520	0	1410	470	0	0	0	1300	0	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			459			495						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1611	547	0	1484	495	0	0	0	1368	0	284
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		35.0			35.0					45.0		45.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		30.3	79.3		30.3	79.3				41.0		41.0
Actuated g/C Ratio		0.38	1.00		0.38	1.00				0.52		0.52
v/c Ratio		0.83	0.36		0.76	0.31				0.77		0.20
Control Delay		26.7	0.6		24.5	0.5				19.3		10.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.7	0.6		24.5	0.5				19.3		10.4
LOS		C	A		C	A				B		B
Approach Delay		20.1			18.5							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 73.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

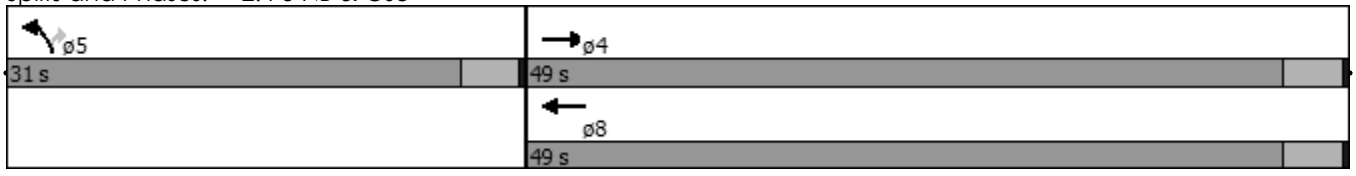


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2470	340	0	1290	920	590	0	440	0	0	0
Future Volume (vph)	0	2470	340	0	1290	920	590	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166			968			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2600	358	0	1358	968	621	0	463	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		49.0			49.0		31.0		31.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		45.1	78.1		45.1	78.1	25.0		25.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.32		0.32			
v/c Ratio		0.89	0.23		0.46	0.61	0.56		0.90			
Control Delay		19.9	0.4		10.5	1.8	24.2		46.8			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		19.9	0.4		10.5	1.8	24.2		46.8			
LOS		B	A		B	A	C		D			
Approach Delay		17.5			6.9							
Approach LOS		B			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

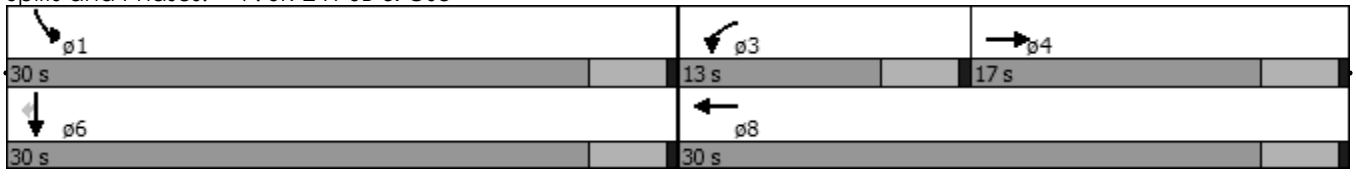


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰↰	↑↑	↱
Traffic Volume (vph)	0	610	1060	120	1430	0	0	0	0	320	850	190
Future Volume (vph)	0	610	1060	120	1430	0	0	0	0	320	850	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			381									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	642	1116	126	1505	0	0	0	0	337	895	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		17.0		13.0	30.0					30.0	30.0	30.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		14.4	58.5	8.1	24.4					26.1	26.1	26.1
Actuated g/C Ratio		0.25	1.00	0.14	0.42					0.45	0.45	0.45
v/c Ratio		0.51	0.70	0.51	0.71					0.22	0.57	0.26
Control Delay		21.8	2.7	31.5	16.2					10.9	14.2	7.2
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.8	2.7	31.5	16.2					10.9	14.2	7.2
LOS		C	A	C	B					B	B	A
Approach Delay		9.6			17.4						12.4	
Approach LOS		A			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

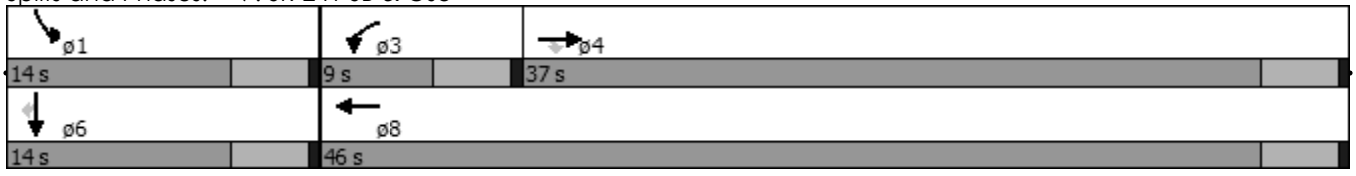


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	610	1060	120	1430	0	0	0	0	320	0	190
Future Volume (vph)	0	610	1060	120	1430	0	0	0	0	320	0	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Flt Permitted				0.950						0.950	0.960	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			753								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										45%		16%
Lane Group Flow (vph)	0	642	1116	126	1505	0	0	0	0	185	184	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		37.0	37.0	9.0	46.0					14.0	14.0	14.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		29.5	29.5	5.1	38.7					9.4	7.6	10.1
Actuated g/C Ratio		0.52	0.52	0.09	0.68					0.17	0.13	0.18
v/c Ratio		0.24	0.94	0.80	0.44					0.67	0.63	0.49
Control Delay		7.5	22.0	67.1	4.5					37.5	23.4	17.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.5	22.0	67.1	4.5					37.5	23.4	17.4
LOS		A	C	E	A					D	C	B
Approach Delay		16.7			9.3						26.4	
Approach LOS		B			A						C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 93.1% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

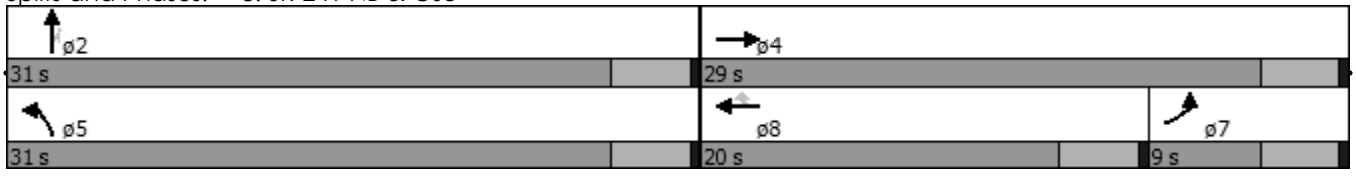


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	910	450	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	910	450	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	600	53	958	474	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.0	19.6			16.3	16.3	27.2	27.2	27.2			
Actuated g/C Ratio	0.09	0.36			0.30	0.30	0.50	0.50	0.50			
v/c Ratio	0.13	0.69			0.40	0.10	0.56	0.27	0.29			
Control Delay	25.8	18.0			17.0	2.4	12.1	9.4	7.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.8	18.0			17.0	2.4	12.1	9.4	7.1			
LOS	C	B			B	A	B	A	A			
Approach Delay		18.4			15.8			10.6				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

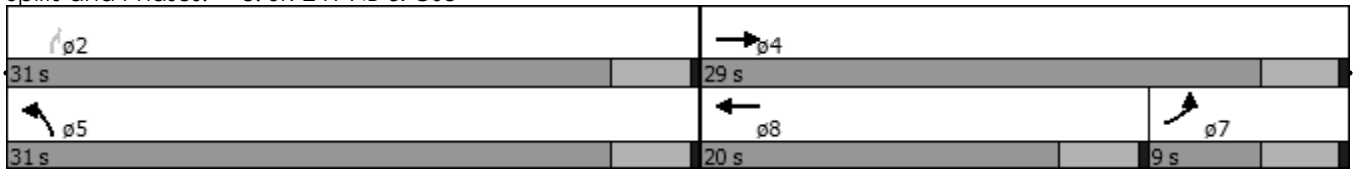


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	910	0	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	910	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	653	0	958	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.0	19.5			16.2		27.1		27.1			
Actuated g/C Ratio	0.09	0.36			0.30		0.50		0.50			
v/c Ratio	0.13	0.69			0.44		0.56		0.29			
Control Delay	25.7	18.1			16.8		12.1		7.0			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.7	18.1			16.8		12.1		7.0			
LOS	C	B			B		B		A			
Approach Delay		18.4			16.8							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 93.1%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

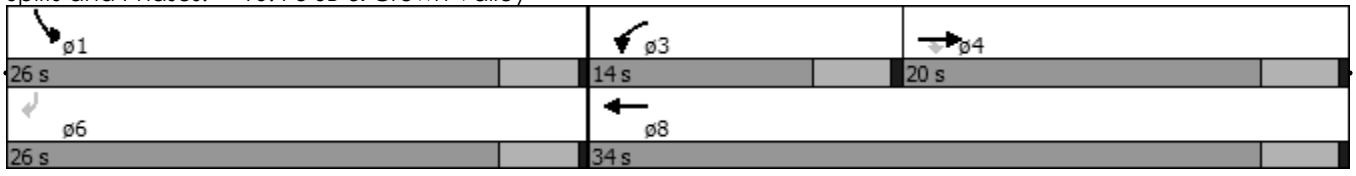


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1940	260	540	1260	0	0	0	0	1130	0	990
Future Volume (vph)	0	1940	260	540	1260	0	0	0	0	1130	0	990
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			274									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2042	274	568	1326	0	0	0	0	1189	0	1042
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		1.02	0.45	0.99	0.52					0.65		0.97
Control Delay		47.9	5.5	64.6	11.1					17.8		39.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		47.9	5.5	64.6	11.1					17.8		39.9
LOS		D	A	E	B					B		D
Approach Delay		42.9			27.1							
Approach LOS		D			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 33.1		Intersection LOS: C	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 10: I-5 SB & Crown Valley

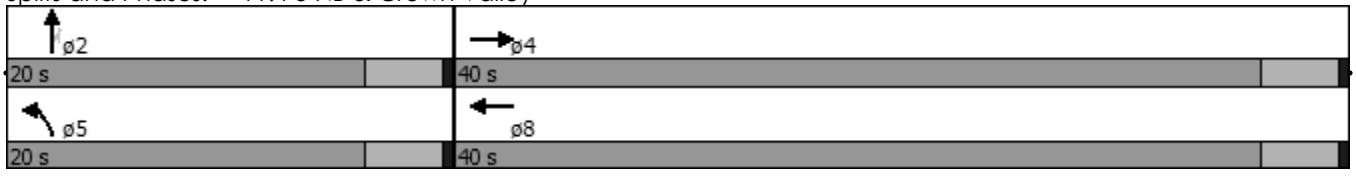


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2360	700	0	1590	1520	230	0	410	0	0	0
Future Volume (vph)	0	2360	700	0	1590	1520	230	0	410	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5962	1283	0	4570	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	5962	1260	0	4570	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39	567		359	800		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			23%			50%	10%		48%			
Lane Group Flow (vph)	0	2654	567	0	2474	800	218	231	225	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.74	0.45		0.86	0.59	0.49	0.57	0.54			
Control Delay		10.1	1.2		12.4	1.9	23.0	24.2	23.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.1	1.2		12.4	1.9	23.0	24.2	23.1			
LOS		B	A		B	A	C	C	C			
Approach Delay		8.5			9.8			23.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

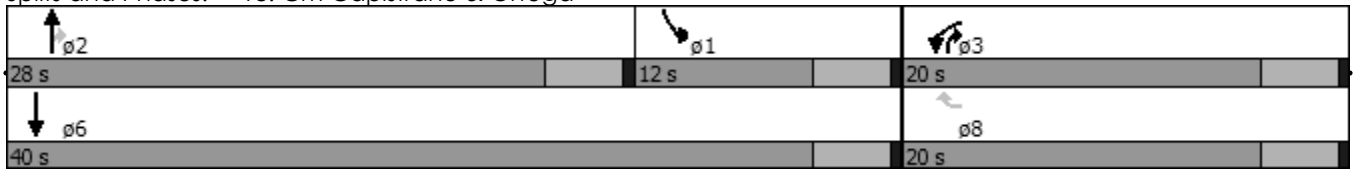


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	200	450	140	140	510
Future Volume (vph)	130	200	450	140	140	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211		147		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	211	474	147	147	537
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	28.0	20.0	12.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	26.7	36.6	7.7	36.1
Actuated g/C Ratio	0.18	0.18	0.50	0.68	0.14	0.67
v/c Ratio	0.42	0.48	0.51	0.13	0.58	0.43
Control Delay	23.3	7.3	14.0	0.8	34.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	7.3	14.0	0.8	34.1	6.2
LOS	C	A	B	A	C	A
Approach Delay	13.6		10.9			12.2
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 51.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

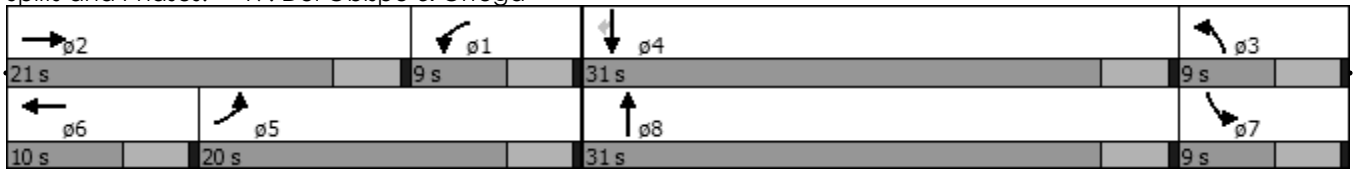


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	620	10	40	20	10	20	50	920	20	10	1120	470
Future Volume (vph)	620	10	40	20	10	20	50	920	20	10	1120	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			21			5				467
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	653	53	0	21	32	0	53	989	0	11	1179	495
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		9.0	31.0		9.0	31.0	31.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.2	15.7		6.5	5.8		5.0	34.7		5.0	27.2	27.2
Actuated g/C Ratio	0.24	0.25		0.10	0.09		0.08	0.55		0.08	0.43	0.43
v/c Ratio	0.79	0.12		0.12	0.18		0.38	0.36		0.08	0.77	0.54
Control Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	21.2	4.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	3.0	0.1
Total Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	24.3	4.8
LOS	C	B		C	B		D	B		C	C	A
Approach Delay		30.5			23.0			11.4			18.6	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 63.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 69.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

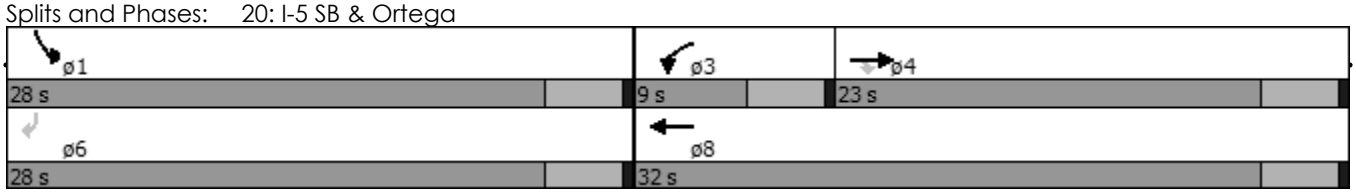


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1410	150	70	950	0	0	0	0	1030	0	660
Future Volume (vph)	0	1410	150	70	950	0	0	0	0	1030	0	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									124
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	158	74	1000	0	0	0	0	1084	0	695
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	9.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.9	18.9	5.0	24.0					24.2		24.2
Actuated g/C Ratio		0.34	0.34	0.09	0.43					0.43		0.43
v/c Ratio		0.79	0.25	0.24	0.63					0.72		0.49
Control Delay		21.6	4.4	27.4	14.4					17.5		11.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.6	4.4	27.4	14.4					17.5		11.4
LOS		C	A	C	B					B		B
Approach Delay		19.9			15.3							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 16.9 Intersection LOS: B
Intersection Capacity Utilization 75.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

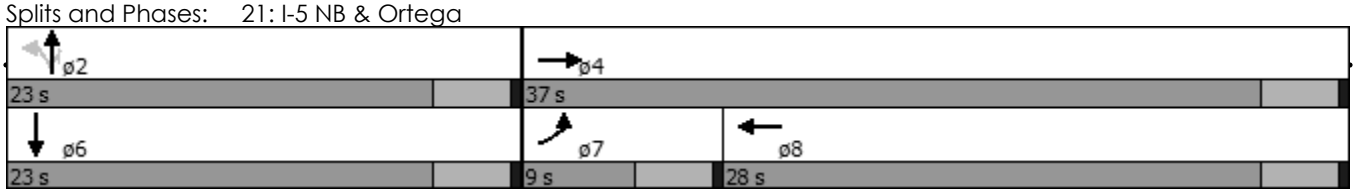


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1620	800	0	1780	10	230	10	270	0	0	10
Future Volume (vph)	10	1620	800	0	1780	10	230	10	270	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5405	1583	0	5529	0	0	1760	1583	0	1611	0
Flt Permitted	0.950							0.748				
Satd. Flow (perm)	1770	5405	1555	0	5529	0	0	1372	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92	573		2			10	91		189	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			32%						10%			
Lane Group Flow (vph)	11	1974	573	0	1885	0	0	281	256	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	37.0			28.0		23.0	23.0	23.0		23.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	31.4	58.5		29.7			19.1	19.1		19.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.33	0.33		0.33	
v/c Ratio	0.07	0.67	0.37		0.67			0.62	0.44		0.02	
Control Delay	26.6	10.6	0.7		13.2			23.9	13.3		0.0	
Queue Delay	0.0	47.9	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.6	58.5	0.7		13.2			23.9	13.3		0.0	
LOS	C	E	A		B			C	B		A	
Approach Delay		45.4			13.2			18.8			0.0	
Approach LOS		D			B			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 30.3 Intersection LOS: C
Intersection Capacity Utilization 69.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

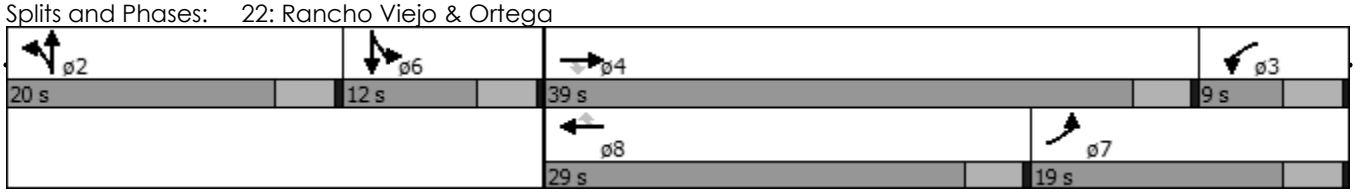


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	1410	390	60	1180	140	430	90	50	160	120	140
Future Volume (vph)	160	1410	390	60	1180	140	430	90	50	160	120	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1736	0	1770	3432	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1736	0	1770	3432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			363			177		31			147	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	168	1484	411	63	1242	147	453	148	0	151	290	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	19.0	39.0	39.0	9.0	29.0	29.0	20.0	20.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	14.0	34.8	34.8	5.0	23.8	23.8	16.0	16.0		8.0	8.0	
Actuated g/C Ratio	0.18	0.45	0.45	0.06	0.31	0.31	0.21	0.21		0.10	0.10	
v/c Ratio	0.53	0.91	0.47	0.56	0.74	0.24	0.62	0.39		0.83	0.60	
Control Delay	36.0	30.7	4.6	56.7	27.5	3.3	33.1	25.2		71.7	22.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	36.0	30.7	4.6	56.7	27.5	3.3	33.1	25.2		71.7	22.6	
LOS	D	C	A	E	C	A	C	C		E	C	
Approach Delay		25.9			26.4			31.2			39.5	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 77.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 28.1 Intersection LOS: C
Intersection Capacity Utilization 78.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

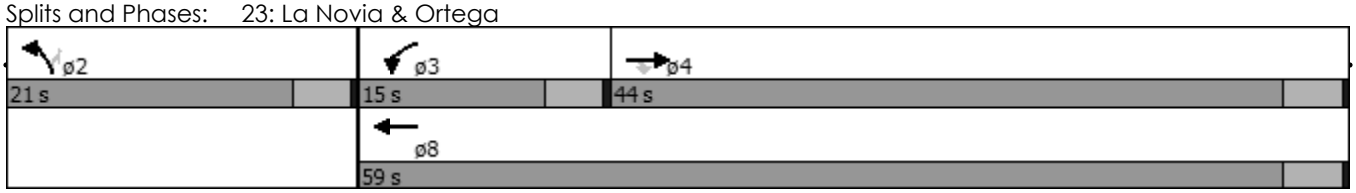


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1490	230	180	1190	230	130
Future Volume (vph)	1490	230	180	1190	230	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1474	1770	3471	3433	1518
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		153				137
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1568	242	189	1253	242	137
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	44.0	44.0	15.0	59.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	39.3	39.3	10.6	53.9	17.0	17.0
Actuated g/C Ratio	0.50	0.50	0.13	0.68	0.22	0.22
v/c Ratio	0.91	0.30	0.79	0.53	0.33	0.32
Control Delay	27.6	5.6	58.7	7.2	27.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	5.6	58.7	7.2	27.9	7.4
LOS	C	A	E	A	C	A
Approach Delay	24.7			13.9	20.5	
Approach LOS	C			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 78.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 20.0 Intersection LOS: B
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

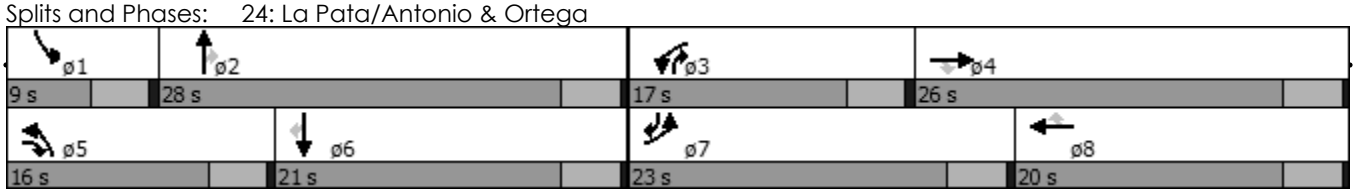


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	680	570	270	140	170	10	430	860	230	10	970	650
Future Volume (vph)	680	570	270	140	170	10	430	860	230	10	970	650
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1518	1770	3654	1518	3539	5588	1518	1770	5588	2948
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			232			123			357
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	716	600	284	147	179	11	453	905	242	11	1021	684
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	23.0	26.0	16.0	17.0	20.0	20.0	16.0	28.0	17.0	9.0	21.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.4	18.6	30.5	10.7	10.9	10.9	11.9	31.3	42.0	5.0	17.1	35.4
Actuated g/C Ratio	0.25	0.25	0.41	0.14	0.15	0.15	0.16	0.42	0.57	0.07	0.23	0.48
v/c Ratio	0.82	0.66	0.41	0.58	0.33	0.03	0.80	0.38	0.26	0.09	0.80	0.42
Control Delay	36.3	29.1	10.1	39.9	29.9	0.1	43.5	16.8	4.8	36.6	33.5	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.3	29.1	10.1	39.9	29.9	0.1	43.5	16.8	4.8	36.6	33.5	5.9
LOS	D	C	B	D	C	A	D	B	A	D	C	A
Approach Delay		28.9			33.3			22.6			22.5	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 25.2 Intersection LOS: C
Intersection Capacity Utilization 72.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

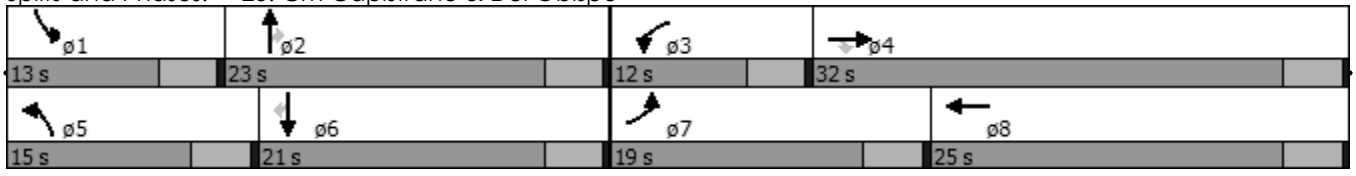


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Future Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3509	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3509	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			263		5				177			303
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	663	263	168	832	0	379	221	158	84	158	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	32.0	32.0	12.0	25.0		15.0	23.0	23.0	13.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.2	27.2	27.2	7.7	20.7		10.9	21.9	21.9	8.0	17.0	17.0
Actuated g/C Ratio	0.18	0.35	0.35	0.10	0.26		0.14	0.28	0.28	0.10	0.22	0.22
v/c Ratio	0.82	0.54	0.38	0.50	0.90		0.80	0.43	0.29	0.46	0.39	0.75
Control Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
LOS	D	C	A	D	D		D	C	A	D	C	B
Approach Delay		25.6			42.2			33.2			24.2	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 72.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

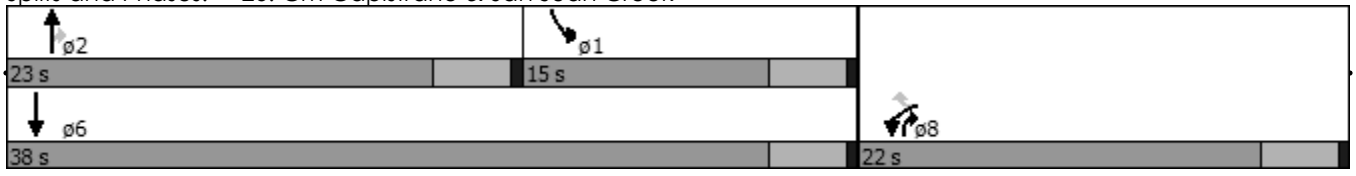


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	480	400	430	350	320	560
Future Volume (vph)	480	400	430	350	320	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3329	1441	3539	1583	3433	3539
Flt Permitted	0.962				0.950	
Satd. Flow (perm)	3329	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	57	290		70		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		31%				
Lane Group Flow (vph)	636	290	453	368	337	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.4	15.4	19.1	34.4	11.0	34.1
Actuated g/C Ratio	0.27	0.27	0.33	0.60	0.19	0.59
v/c Ratio	0.68	0.50	0.39	0.38	0.51	0.28
Control Delay	21.1	5.8	16.5	4.6	24.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	5.8	16.5	4.6	24.6	6.6
LOS	C	A	B	A	C	A
Approach Delay	16.3		11.2			13.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 13.6 Intersection LOS: B
Intersection Capacity Utilization 50.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

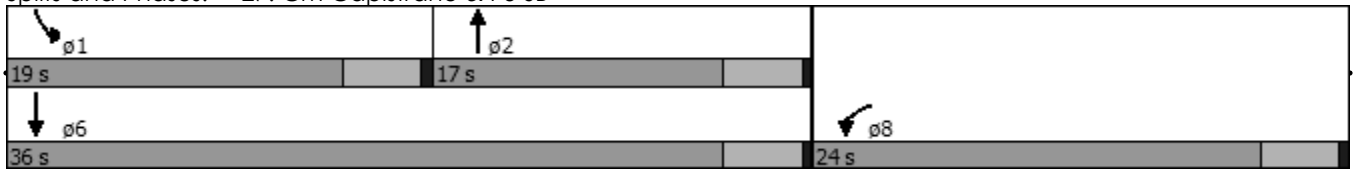


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	750	380	440	60	490	550
Future Volume (vph)	750	380	440	60	490	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		400		63		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	789	400	463	63	516	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		17.0		19.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	57.6	15.0	57.6	13.1	32.1
Actuated g/C Ratio	0.30	1.00	0.26	1.00	0.23	0.56
v/c Ratio	0.76	0.25	0.50	0.04	0.66	0.29
Control Delay	23.4	0.4	21.6	0.1	24.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	0.4	21.6	0.1	24.9	7.7
LOS	C	A	C	A	C	A
Approach Delay	15.6		19.1			15.8
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 57.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

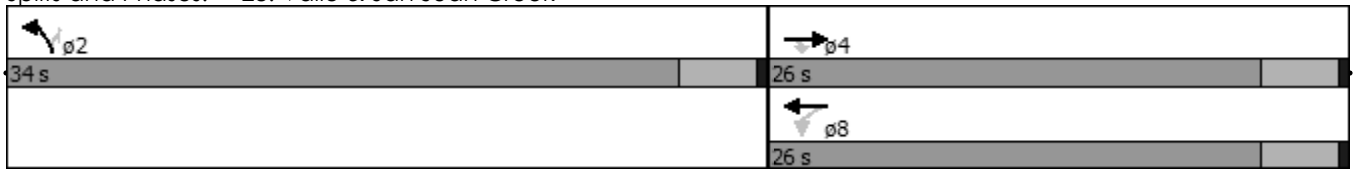


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	350	320	70	510	460	220
Future Volume (vph)	350	320	70	510	460	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.778	0.950	
Satd. Flow (perm)	1863	1493	0	2754	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		337				232
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	337	0	611	484	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	26.0	26.0	26.0	26.0	34.0	34.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.7	16.7		16.7	30.2	30.2
Actuated g/C Ratio	0.30	0.30		0.30	0.55	0.55
v/c Ratio	0.65	0.49		0.73	0.50	0.24
Control Delay	22.2	4.7		22.5	10.9	2.1
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	22.2	4.7		22.5	10.9	2.1
LOS	C	A		C	B	A
Approach Delay	13.8			22.5	8.0	
Approach LOS	B			C	A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

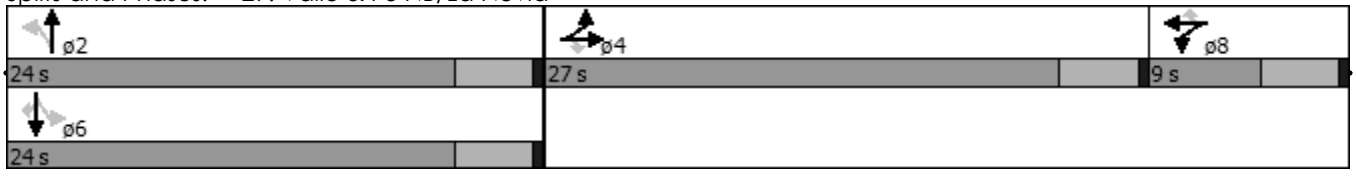


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Future Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1785	1583	0	1796	1583	1770	1802	0	0	1833	1583
Flt Permitted		0.958			0.964		0.560				0.844	
Satd. Flow (perm)	0	1785	1583	0	1796	1583	1043	1802	0	0	1572	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			95		17				200
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	453	84	0	43	95	168	200	0	0	252	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	27.0	27.0	27.0	9.0	9.0	9.0	24.0	24.0		24.0	24.0	24.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.8	17.8		5.1	5.1	20.6	20.6			20.6	20.6
Actuated g/C Ratio		0.33	0.33		0.10	0.10	0.39	0.39			0.39	0.39
v/c Ratio		0.76	0.14		0.25	0.40	0.42	0.28			0.42	0.27
Control Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
LOS		C	A		C	B	B	B			B	A
Approach Delay		22.0			17.8			16.4			11.3	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 66.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 29: Valle & I-5 NB/La Novia

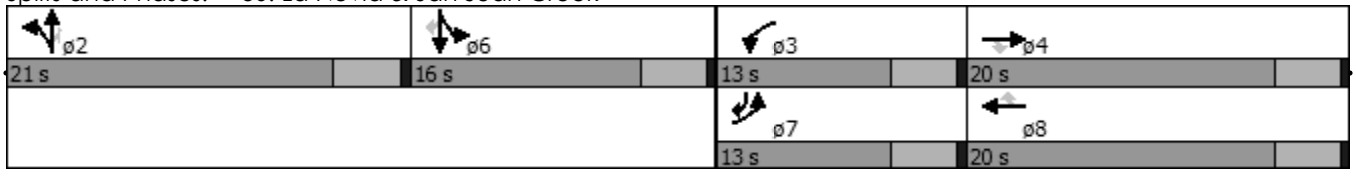


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Future Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1484	1770	1863	1484	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			140			263			140			263
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	105	11	105	105	263	95	179	11	211	179	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	13.0	20.0	20.0	13.0	20.0	20.0	21.0	21.0	21.0	16.0	16.0	13.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.6	11.9	11.9	8.0	9.2	9.2	17.1	17.1	17.1	12.0	12.0	24.7
Actuated g/C Ratio	0.14	0.19	0.19	0.13	0.15	0.15	0.27	0.27	0.27	0.19	0.19	0.39
v/c Ratio	0.65	0.30	0.03	0.46	0.39	0.60	0.20	0.36	0.02	0.62	0.50	0.34
Control Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
LOS	D	C	A	C	C	A	C	C	A	C	C	A
Approach Delay		34.0			19.2			20.6			20.6	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 63			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

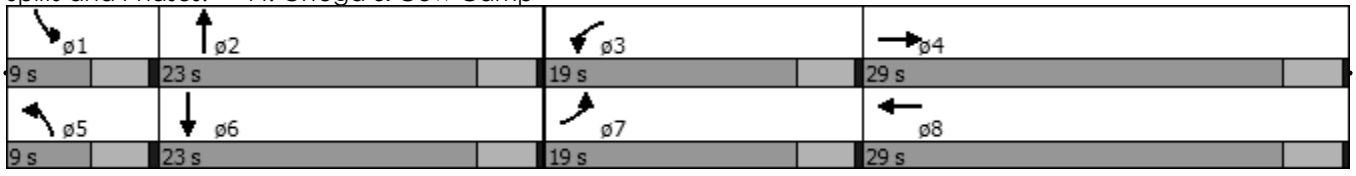


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	570	410	10	170	930	100	10	640	50	30	90	470
Future Volume (vph)	570	410	10	170	930	100	10	640	50	30	90	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			16			10			413	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	600	443	0	179	1084	0	11	727	0	32	590	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	19.0	29.0		19.0	29.0		9.0	23.0		9.0	23.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	14.9	27.6		12.0	24.8		5.0	19.1		5.0	20.7	
Actuated g/C Ratio	0.20	0.37		0.16	0.33		0.07	0.26		0.07	0.28	
v/c Ratio	0.85	0.32		0.63	0.88		0.09	0.76		0.27	0.50	
Control Delay	42.6	18.7		39.4	34.0		36.6	32.4		40.7	8.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	42.6	18.7		39.4	34.0		36.6	32.4		40.7	8.6	
LOS	D	B		D	C		D	C		D	A	
Approach Delay		32.4			34.8			32.5			10.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 80.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp



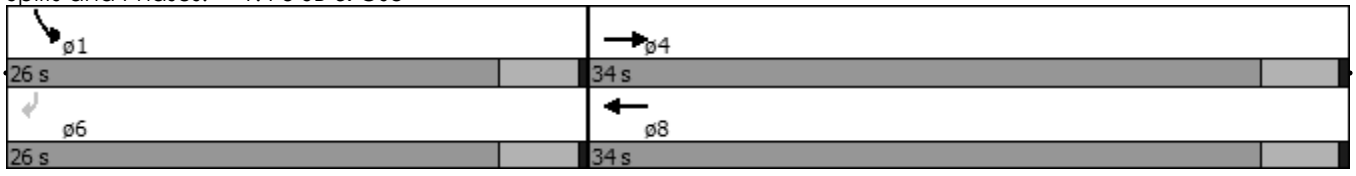
HCM Signalized Intersection Data Set 4
Alternative Existing Baseline –
Project Alternative 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Future Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			537			684						25
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1011	537	0	1589	684	0	0	0	600	0	295
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		34.0			34.0					26.0		26.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		26.2	56.3		26.2	56.3				22.1		22.1
Actuated g/C Ratio		0.47	1.00		0.47	1.00				0.39		0.39
v/c Ratio		0.43	0.35		0.67	0.43				0.45		0.27
Control Delay		10.5	0.6		13.2	0.9				14.7		12.3
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		10.5	0.6		13.2	0.9				14.7		12.3
LOS		B	A		B	A				B		B
Approach Delay		7.1			9.5							
Approach LOS		A			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 52.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

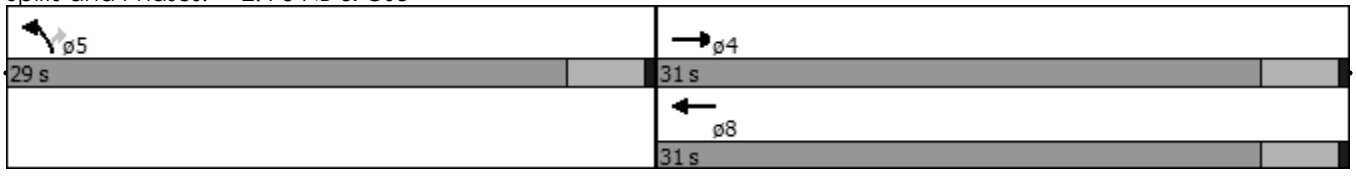


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1120	410	0	1790	1380	370	0	430	0	0	0
Future Volume (vph)	0	1120	410	0	1790	1380	370	0	430	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			432			1091			28			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1179	432	0	1884	1453	389	0	453	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		31.0			31.0		29.0		29.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		26.1	53.4		26.1	53.4	19.2		19.2			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.36		0.36			
v/c Ratio		0.48	0.28		0.76	0.92	0.32		0.77			
Control Delay		10.7	0.5		14.6	12.3	12.9		24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		10.7	0.5		14.6	12.3	12.9		24.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.0			13.6							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

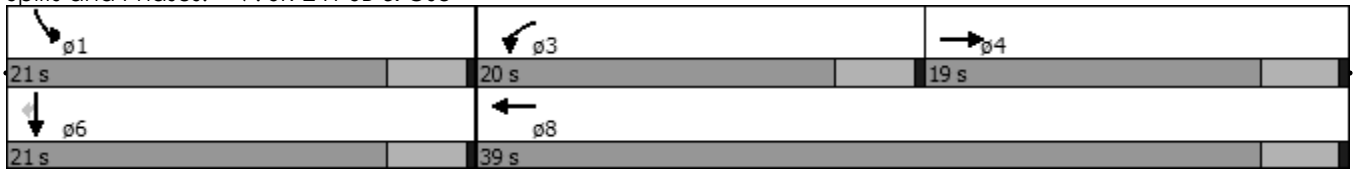


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰↰	↑↑	↱
Traffic Volume (vph)	0	780	880	230	2000	0	0	0	0	40	480	60
Future Volume (vph)	0	780	880	230	2000	0	0	0	0	40	480	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	926	242	2105	0	0	0	0	42	505	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		20.0	39.0					21.0	21.0	21.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.8	58.5	12.7	33.4					10.2	17.0	17.0
Actuated g/C Ratio		0.29	1.00	0.22	0.57					0.17	0.29	0.29
v/c Ratio		0.56	0.58	0.63	0.72					0.07	0.49	0.12
Control Delay		20.1	1.6	28.5	10.9					18.2	19.6	3.1
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		20.1	1.6	28.5	10.9					18.2	19.6	3.1
LOS		C	A	C	B					B	B	A
Approach Delay		10.3			12.7						17.8	
Approach LOS		B			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 12.5 Intersection LOS: B
Intersection Capacity Utilization 70.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

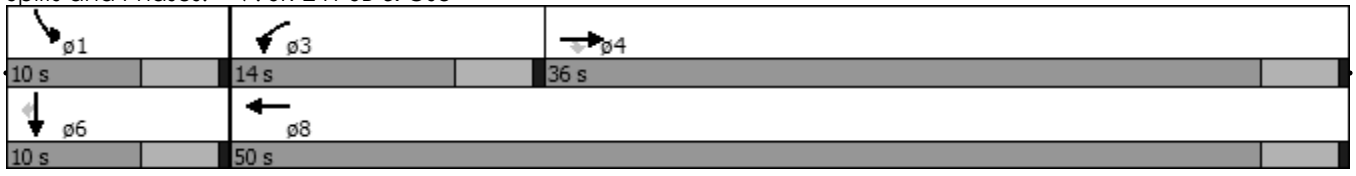


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	780	880	230	2000	0	0	0	0	40	0	60
Future Volume (vph)	0	780	880	230	2000	0	0	0	0	40	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Flt Permitted				0.950						0.950	0.993	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			482								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										13%		46%
Lane Group Flow (vph)	0	821	926	242	2105	0	0	0	0	37	34	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		36.0	36.0	14.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		27.9	27.9	9.8	41.8					5.9	2.2	6.1
Actuated g/C Ratio		0.50	0.50	0.18	0.75					0.11	0.04	0.11
v/c Ratio		0.32	0.90	0.78	0.55					0.21	0.23	0.14
Control Delay		8.5	19.7	44.4	3.6					27.9	3.8	1.3
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		8.5	19.7	44.4	3.6					27.9	3.8	1.3
LOS		A	B	D	A					C	A	A
Approach Delay		14.4			7.8						11.5	
Approach LOS		B			A						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 81.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

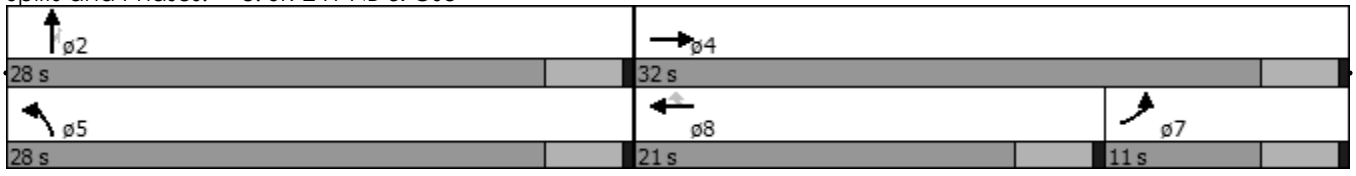


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	1030	800	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	1030	800	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1221	337	1084	842	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	11.0	32.0			21.0	21.0	28.0	28.0	28.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	7.0	28.0			17.0	17.0	24.0	24.0	24.0			
Actuated g/C Ratio	0.12	0.47			0.28	0.28	0.40	0.40	0.40			
v/c Ratio	0.76	0.34			0.85	0.68	0.79	0.60	0.11			
Control Delay	40.5	10.9			27.6	22.0	21.1	16.3	2.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	40.5	10.9			27.6	22.0	21.1	16.3	2.9			
LOS	D	B			C	C	C	B	A			
Approach Delay		21.2			26.4			18.4				
Approach LOS		C			C			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 70.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

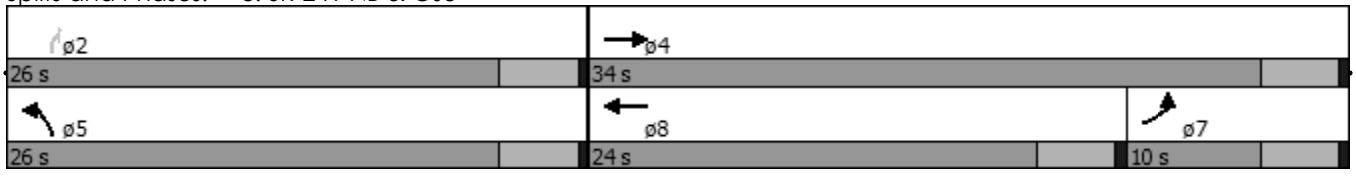


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	1030	0	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	1030	0	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					124				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1558	0	1084	0	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	10.0	34.0			24.0		26.0		26.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	6.0	30.0			20.0		22.0		22.0			
Actuated g/C Ratio	0.10	0.50			0.33		0.37		0.37			
v/c Ratio	0.89	0.32			0.91		0.86		0.12			
Control Delay	57.5	9.6			27.6		26.8		3.2			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	57.5	9.6			27.6		26.8		3.2			
LOS	E	A			C		C		A			
Approach Delay		26.3			27.6							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 26.5		Intersection LOS: C	
Intersection Capacity Utilization 81.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

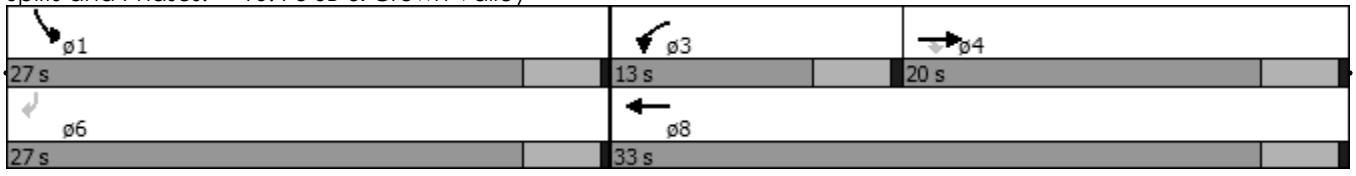


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1410	210	360	1220	0	0	0	0	1290	0	790
Future Volume (vph)	0	1410	210	360	1220	0	0	0	0	1290	0	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	221	379	1284	0	0	0	0	1358	0	832
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.74	0.39	0.74	0.52					0.71		0.74
Control Delay		22.7	5.3	34.9	11.7					18.2		18.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		22.7	5.3	34.9	11.7					18.2		18.9
LOS		C	A	C	B					B		B
Approach Delay		20.4			17.0							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 18.6 Intersection LOS: B
Intersection Capacity Utilization 61.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

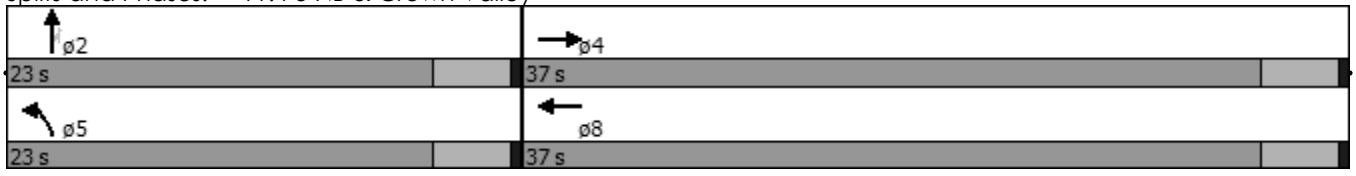


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	590	0	1400	1210	190	0	490	0	0	0
Future Volume (vph)	0	2100	590	0	1400	1210	190	0	490	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5977	1283	0	4590	1362	1681	1454	1504	0	0	0
Flt Permitted							0.950	0.996				
Satd. Flow (perm)	0	5977	1260	0	4590	1362	1681	1454	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26	503		289	637		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			19%			50%	10%		48%			
Lane Group Flow (vph)	0	2329	503	0	2111	637	180	268	268	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		37.0			37.0		23.0	23.0	23.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		33.0	60.0		33.0	60.0	19.0	19.0	19.0			
Actuated g/C Ratio		0.55	1.00		0.55	1.00	0.32	0.32	0.32			
v/c Ratio		0.71	0.40		0.80	0.47	0.34	0.57	0.55			
Control Delay		11.3	0.9		12.0	1.2	17.9	21.5	20.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		11.3	0.9		12.0	1.2	17.9	21.5	20.9			
LOS		B	A		B	A	B	C	C			
Approach Delay		9.5			9.5			20.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

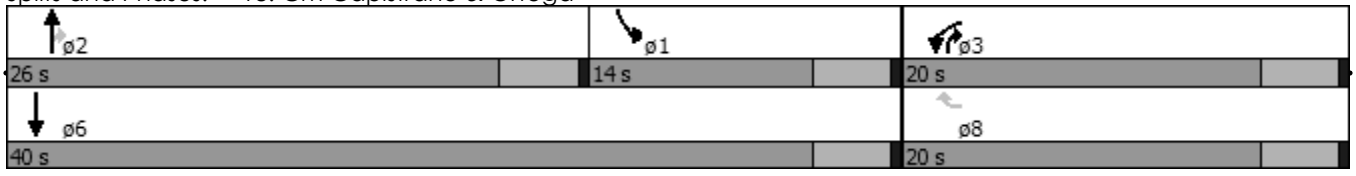


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	180	190	360	120	130	540
Future Volume (vph)	180	190	360	120	130	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		200		126		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	200	379	126	137	568
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	26.0	20.0	14.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.1	11.1	25.1	36.2	9.2	36.1
Actuated g/C Ratio	0.20	0.20	0.45	0.66	0.17	0.65
v/c Ratio	0.53	0.44	0.45	0.12	0.47	0.47
Control Delay	25.4	6.6	14.9	1.0	27.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	6.6	14.9	1.0	27.1	7.0
LOS	C	A	B	A	C	A
Approach Delay	15.7		11.5			10.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 12.2 Intersection LOS: B
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

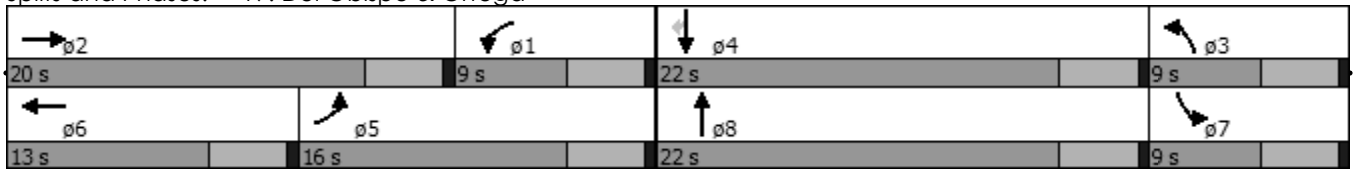


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	10	40	10	10	10	30	980	10	10	810	620
Future Volume (vph)	380	10	40	10	10	10	30	980	10	10	810	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			11			3				653
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	400	53	0	11	22	0	32	1043	0	11	853	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	16.0	20.0		9.0	13.0		9.0	22.0		9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	10.2	9.6		6.0	6.0		5.1	25.9		5.1	18.2	18.2
Actuated g/C Ratio	0.21	0.20		0.13	0.13		0.11	0.55		0.11	0.38	0.38
v/c Ratio	0.54	0.15		0.05	0.10		0.17	0.38		0.06	0.63	0.66
Control Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.9	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.9	5.4
LOS	C	B		B	B		C	A		C	B	A
Approach Delay		19.1			17.6			9.2			11.5	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 47.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

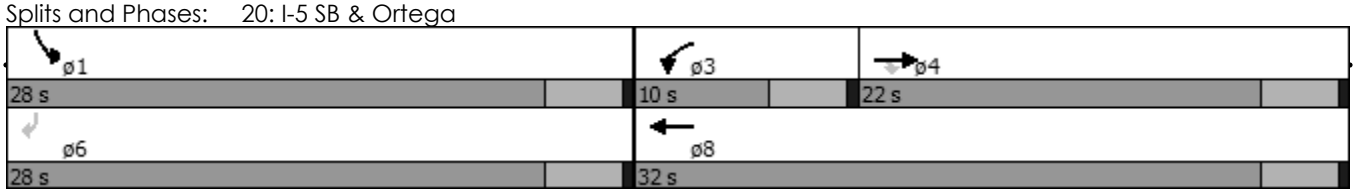


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰↰	↑↑					↰↰		↱↱
Traffic Volume (vph)	0	1230	150	170	880	0	0	0	0	920	0	560
Future Volume (vph)	0	1230	150	170	880	0	0	0	0	920	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									155
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1295	158	179	926	0	0	0	0	968	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		22.0	22.0	10.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.0	18.0	6.0	25.7					24.2		24.2
Actuated g/C Ratio		0.31	0.31	0.10	0.44					0.42		0.42
v/c Ratio		0.75	0.27	0.49	0.56					0.66		0.42
Control Delay		21.6	4.7	30.4	13.2					17.0		10.2
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.6	4.7	30.4	13.2					17.0		10.2
LOS		C	A	C	B					B		B
Approach Delay		19.8			16.0							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 64.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

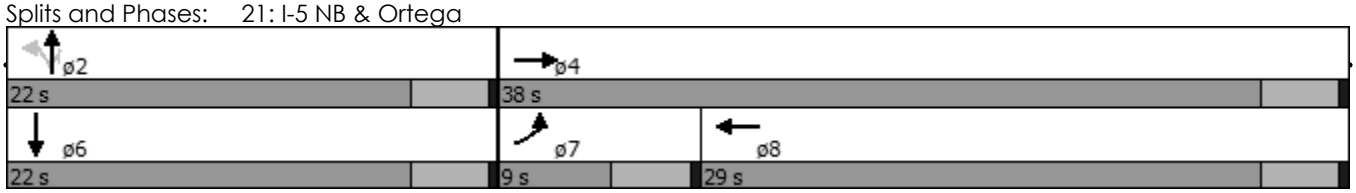


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1480	680	0	2190	10	270	10	350	0	0	10
Future Volume (vph)	10	1480	680	0	2190	10	270	10	350	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5419	1583	0	5529	0	0	1751	1583	0	1611	0
Flt Permitted	0.950							0.757				
Satd. Flow (perm)	1770	5419	1555	0	5529	0	0	1379	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76	508		1			15	91		182	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			29%						14%			
Lane Group Flow (vph)	11	1766	508	0	2316	0	0	347	316	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	38.0			29.0		22.0	22.0	22.0		22.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.2	56.3		28.5			18.1	18.1		18.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.32	0.32		0.32	
v/c Ratio	0.07	0.60	0.33		0.83			0.77	0.55		0.02	
Control Delay	26.4	9.4	0.6		16.7			31.9	16.3		0.0	
Queue Delay	0.0	4.6	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.4	14.0	0.6		16.7			31.9	16.3		0.0	
LOS	C	B	A		B			C	B		A	
Approach Delay		11.1			16.7			24.5			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 21: I-5 NB & Ortega

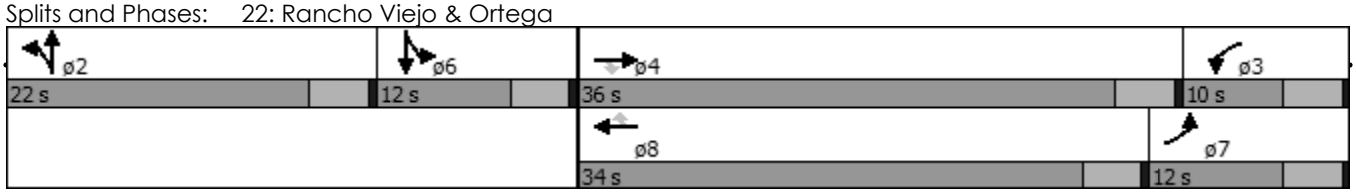


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1240	440	70	1800	240	280	150	40	170	150	100
Future Volume (vph)	140	1240	440	70	1800	240	280	150	40	170	150	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1787	0	1770	3507	0
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1787	0	1770	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			436			253		15			105	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										17%		
Lane Group Flow (vph)	147	1305	463	74	1895	253	295	200	0	149	293	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	12.0	36.0	36.0	10.0	34.0	34.0	22.0	22.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	8.0	34.0	34.0	5.9	30.0	30.0	18.0	18.0		8.0	8.0	
Actuated g/C Ratio	0.10	0.42	0.42	0.07	0.38	0.38	0.22	0.22		0.10	0.10	
v/c Ratio	0.83	0.84	0.52	0.57	0.92	0.34	0.37	0.48		0.84	0.66	
Control Delay	72.7	27.9	4.7	54.1	33.0	3.8	27.8	29.5		74.4	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	72.7	27.9	4.7	54.1	33.0	3.8	27.8	29.5		74.4	29.8	
LOS	E	C	A	D	C	A	C	C		E	C	
Approach Delay		25.7			30.4			28.5			44.8	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 29.7 Intersection LOS: C
Intersection Capacity Utilization 77.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

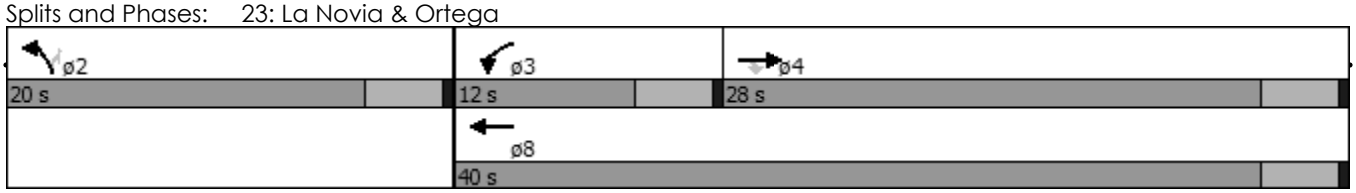


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1060	260	160	1860	300	150
Future Volume (vph)	1060	260	160	1860	300	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1493	1770	3471	3433	1529
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		271				158
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1116	274	168	1958	316	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	28.0	28.0	12.0	40.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	24.2	24.2	7.8	36.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40	0.13	0.60	0.27	0.27
v/c Ratio	0.80	0.36	0.73	0.94	0.35	0.30
Control Delay	21.4	3.4	45.9	22.6	19.1	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	3.4	45.9	22.6	19.1	5.4
LOS	C	A	D	C	B	A
Approach Delay	17.9			24.5	14.5	
Approach LOS	B			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 71.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

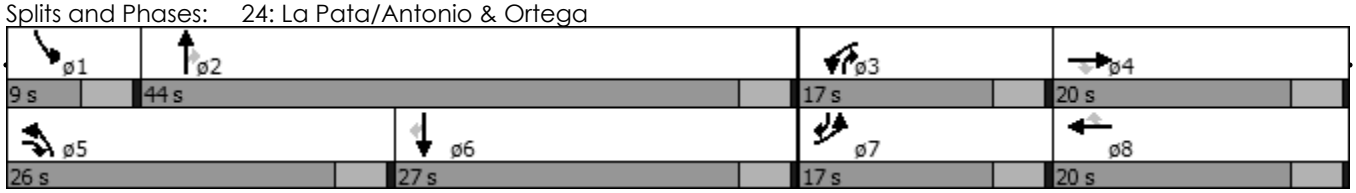


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	140	670	250	390	20	630	1020	140	10	1300	810
Future Volume (vph)	420	140	670	250	390	20	630	1020	140	10	1300	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			147			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	442	147	705	263	411	21	663	1074	147	11	1368	853
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	26.0	17.0	20.0	20.0	26.0	44.0	17.0	9.0	27.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.0	14.3	36.3	13.0	14.3	14.3	22.0	47.3	60.3	5.0	23.0	36.0
Actuated g/C Ratio	0.15	0.16	0.41	0.15	0.16	0.16	0.25	0.54	0.68	0.06	0.26	0.41
v/c Ratio	0.85	0.25	1.05	1.01	0.70	0.06	0.75	0.36	0.13	0.11	0.94	0.66
Control Delay	53.7	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	46.0	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	46.0	19.1
LOS	D	C	E	F	D	A	D	B	A	D	D	B
Approach Delay		61.0			62.2			20.6			35.7	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 39.4 Intersection LOS: D
Intersection Capacity Utilization 92.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

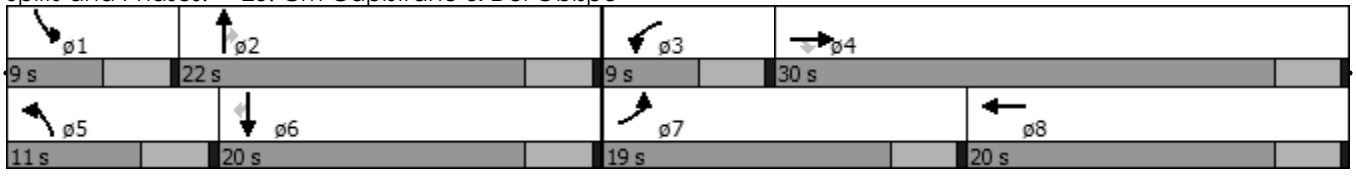


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Future Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3525	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1524	3433	3525	0	3433	1863	1524	1770	1863	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284		2				203			386
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	842	284	74	643	0	326	221	53	42	211	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	30.0	30.0	9.0	20.0		11.0	22.0	22.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	27.3	27.3	5.0	15.4		7.0	21.6	21.6	5.0	16.0	16.0
Actuated g/C Ratio	0.22	0.39	0.39	0.07	0.22		0.10	0.31	0.31	0.07	0.23	0.23
v/c Ratio	0.99	0.61	0.37	0.30	0.82		0.94	0.38	0.09	0.33	0.49	0.70
Control Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
LOS	E	B	A	C	D		E	C	A	D	C	B
Approach Delay		30.6			35.6			46.6			18.1	
Approach LOS		C			D			D			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 69.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 31.9		Intersection LOS: C	
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

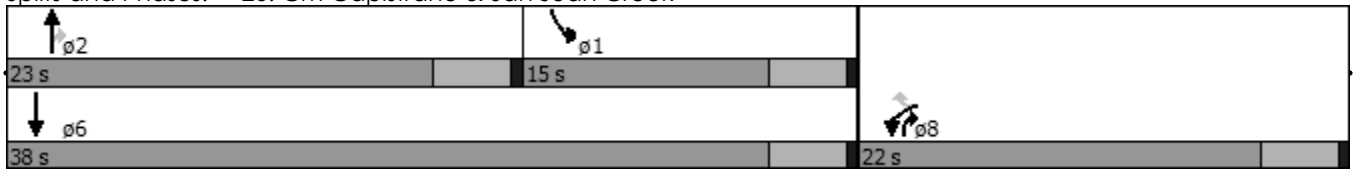


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	430	460	310	290	270	460
Future Volume (vph)	430	460	310	290	270	460
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3282	1441	3539	1583	3433	3539
Flt Permitted	0.966				0.950	
Satd. Flow (perm)	3282	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	114	295		105		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		39%				
Lane Group Flow (vph)	642	295	326	305	284	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.9	14.9	19.1	34.0	11.0	34.1
Actuated g/C Ratio	0.26	0.26	0.33	0.60	0.19	0.60
v/c Ratio	0.68	0.51	0.28	0.32	0.43	0.23
Control Delay	19.3	5.9	15.4	3.4	23.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.3	5.9	15.4	3.4	23.3	6.2
LOS	B	A	B	A	C	A
Approach Delay	15.1		9.6			12.5
Approach LOS	B		A			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 48.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

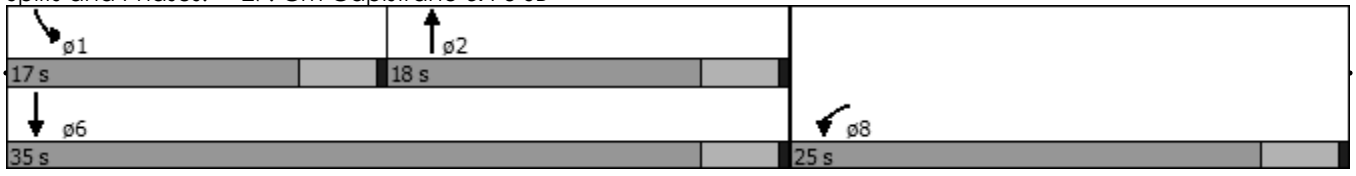


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	690	240	360	20	440	450
Future Volume (vph)	690	240	360	20	440	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		253		21		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	726	253	379	21	463	474
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	25.0		18.0		17.0	35.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	16.6	55.7	15.5	55.7	11.6	31.1
Actuated g/C Ratio	0.30	1.00	0.28	1.00	0.21	0.56
v/c Ratio	0.71	0.16	0.39	0.01	0.65	0.24
Control Delay	21.6	0.2	19.0	0.0	25.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	0.2	19.0	0.0	25.2	7.3
LOS	C	A	B	A	C	A
Approach Delay	16.0		18.0			16.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 52.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

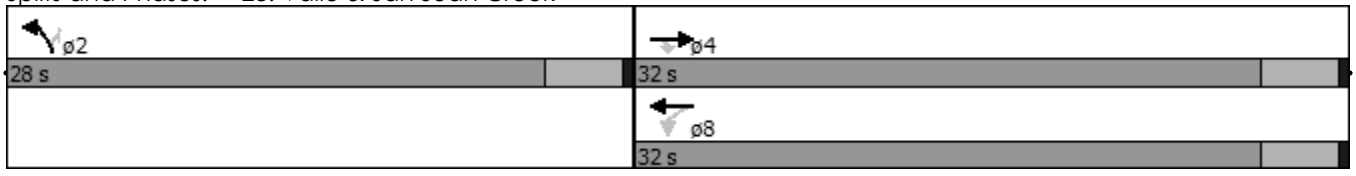


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	330	230	150	550	340	100
Future Volume (vph)	330	230	150	550	340	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.720	0.950	
Satd. Flow (perm)	1863	1493	0	2548	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		242				105
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	347	242	0	737	358	105
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	19.9	19.9		19.9	24.2	24.2
Actuated g/C Ratio	0.38	0.38		0.38	0.46	0.46
v/c Ratio	0.49	0.34		0.76	0.44	0.13
Control Delay	14.4	3.1		19.4	13.0	3.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	14.4	3.1		19.4	13.0	3.4
LOS	B	A		B	B	A
Approach Delay	9.8			19.4	10.8	
Approach LOS	A			B	B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 52.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

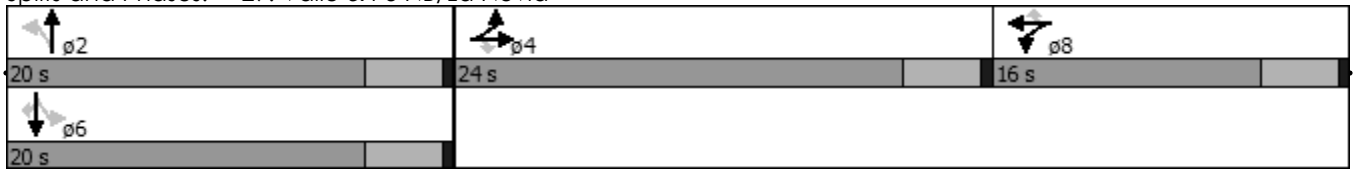


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Future Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1781	1583	0	1857	1583	1770	1814	0	0	1857	1583
Flt Permitted		0.956			0.997		0.620				0.987	
Satd. Flow (perm)	0	1781	1583	0	1857	1583	1155	1814	0	0	1839	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			91		11				221
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	358	74	0	179	53	74	85	0	0	200	221
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	16.0	16.0	16.0	20.0	20.0		20.0	20.0	20.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		14.9	14.9		9.8	9.8	16.9	16.9			16.9	16.9
Actuated g/C Ratio		0.29	0.29		0.19	0.19	0.33	0.33			0.33	0.33
v/c Ratio		0.69	0.14		0.50	0.14	0.19	0.14			0.33	0.33
Control Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
LOS		C	A		C	A	B	B			B	A
Approach Delay		20.9			20.8			16.4			11.2	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 51
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia

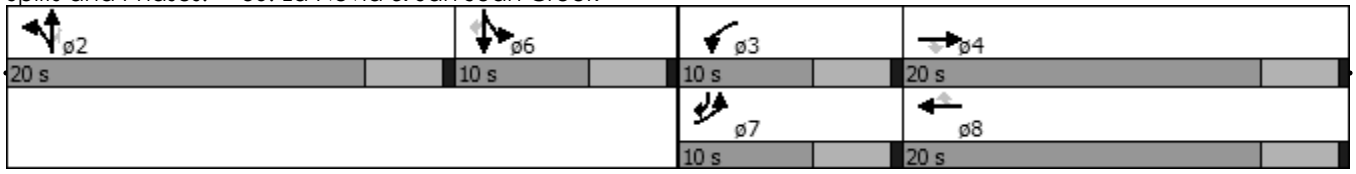


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Future Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			295			164			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	126	95	53	232	295	126	189	42	158	158	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.3	16.3	5.9	12.1	12.1	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.10	0.22	0.22	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.95	0.23	0.16	0.28	0.58	0.53	0.25	0.36	0.08	0.84	0.79	0.46
Control Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
LOS	F	B	A	C	C	A	B	B	A	E	E	A
Approach Delay		44.4			16.4			16.7			33.6	
Approach LOS		D			B			B			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

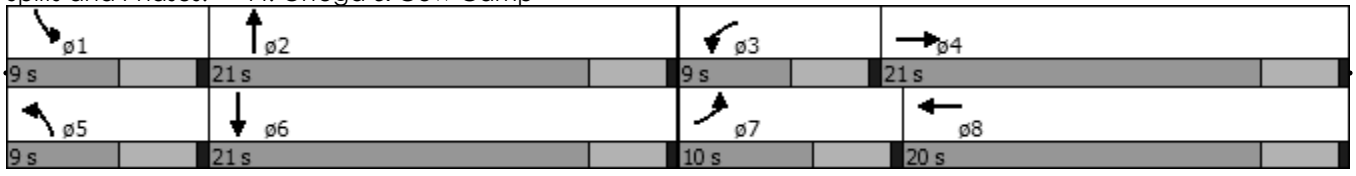


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	830	10	30	280	20	10	50	180	120	570	480
Future Volume (vph)	330	830	10	30	280	20	10	50	180	120	570	480
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3680	0	1770	3202	0	1770	3414	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3680	0	1770	3202	0	1770	3414	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			13			189			352	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	885	0	32	316	0	11	242	0	126	1105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	10.0	21.0		9.0	20.0		9.0	21.0		9.0	21.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	6.0	18.0		5.0	11.3		5.0	17.1		5.0	24.5	
Actuated g/C Ratio	0.11	0.32		0.09	0.20		0.09	0.31		0.09	0.44	
v/c Ratio	0.90	0.73		0.20	0.42		0.07	0.22		0.79	0.65	
Control Delay	56.8	22.6		28.2	19.8		26.1	5.4		63.5	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	56.8	22.6		28.2	19.8		26.1	5.4		63.5	12.6	
LOS	E	C		C	B		C	A		E	B	
Approach Delay		32.2			20.5			6.3			17.8	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp

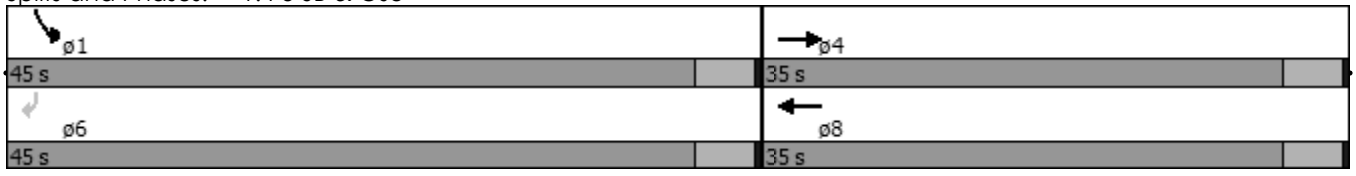


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1530	520	0	1410	470	0	0	0	1300	0	270
Future Volume (vph)	0	1530	520	0	1410	470	0	0	0	1300	0	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			459			495						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1611	547	0	1484	495	0	0	0	1368	0	284
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		35.0			35.0					45.0		45.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		30.3	79.3		30.3	79.3				41.0		41.0
Actuated g/C Ratio		0.38	1.00		0.38	1.00				0.52		0.52
v/c Ratio		0.83	0.36		0.76	0.31				0.77		0.20
Control Delay		26.7	0.6		24.5	0.5				19.3		10.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.7	0.6		24.5	0.5				19.3		10.4
LOS		C	A		C	A				B		B
Approach Delay		20.1			18.5							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 73.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

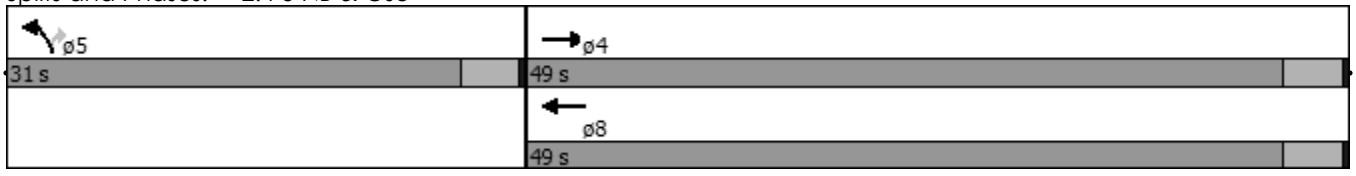


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2470	340	0	1290	920	590	0	440	0	0	0
Future Volume (vph)	0	2470	340	0	1290	920	590	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166			968			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2600	358	0	1358	968	621	0	463	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		49.0			49.0		31.0		31.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		45.1	78.1		45.1	78.1	25.0		25.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.32		0.32			
v/c Ratio		0.89	0.23		0.46	0.61	0.56		0.90			
Control Delay		19.9	0.4		10.5	1.8	24.2		46.8			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		19.9	0.4		10.5	1.8	24.2		46.8			
LOS		B	A		B	A	C		D			
Approach Delay		17.5			6.9							
Approach LOS		B			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

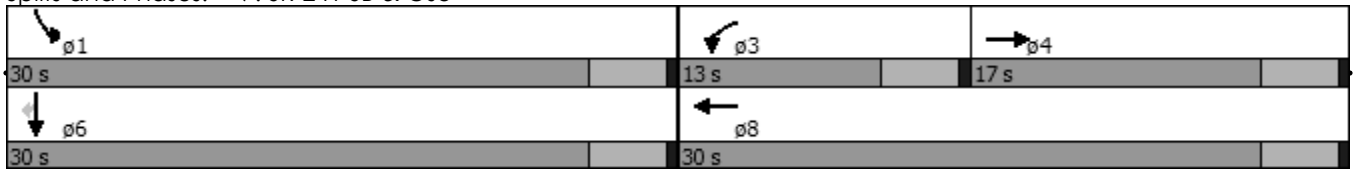


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰↰	↑↑	↱
Traffic Volume (vph)	0	610	1070	120	1430	0	0	0	0	320	850	190
Future Volume (vph)	0	610	1070	120	1430	0	0	0	0	320	850	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			381									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	642	1126	126	1505	0	0	0	0	337	895	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		17.0		13.0	30.0					30.0	30.0	30.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		14.4	58.5	8.1	24.4					26.1	26.1	26.1
Actuated g/C Ratio		0.25	1.00	0.14	0.42					0.45	0.45	0.45
v/c Ratio		0.51	0.71	0.51	0.71					0.22	0.57	0.26
Control Delay		21.8	2.7	31.5	16.2					10.9	14.2	7.2
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.8	2.7	31.5	16.2					10.9	14.2	7.2
LOS		C	A	C	B					B	B	A
Approach Delay		9.6			17.4						12.4	
Approach LOS		A			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

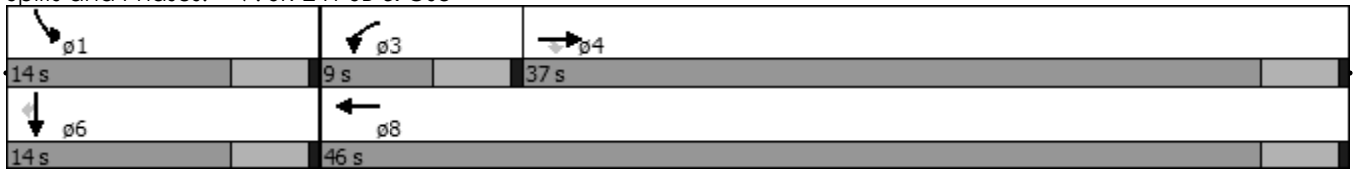


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	610	1070	120	1430	0	0	0	0	320	0	190
Future Volume (vph)	0	610	1070	120	1430	0	0	0	0	320	0	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Flt Permitted				0.950						0.950	0.960	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			753								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										45%		16%
Lane Group Flow (vph)	0	642	1126	126	1505	0	0	0	0	185	184	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		37.0	37.0	9.0	46.0					14.0	14.0	14.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		30.0	30.0	5.1	39.1					9.4	7.6	10.1
Actuated g/C Ratio		0.52	0.52	0.09	0.68					0.16	0.13	0.18
v/c Ratio		0.24	0.95	0.81	0.43					0.67	0.63	0.49
Control Delay		7.5	23.0	68.1	4.4					37.8	23.3	17.5
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.5	23.0	68.1	4.4					37.8	23.3	17.5
LOS		A	C	E	A					D	C	B
Approach Delay		17.3			9.4						26.5	
Approach LOS		B			A						C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 15.3		Intersection LOS: B	
Intersection Capacity Utilization 93.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

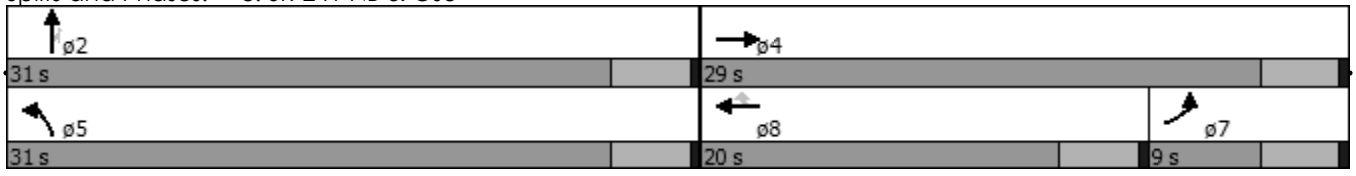


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	910	450	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	910	450	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	600	53	958	474	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.0	19.6			16.3	16.3	27.2	27.2	27.2			
Actuated g/C Ratio	0.09	0.36			0.30	0.30	0.50	0.50	0.50			
v/c Ratio	0.13	0.69			0.40	0.10	0.56	0.27	0.29			
Control Delay	25.8	18.0			17.0	2.4	12.1	9.4	7.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.8	18.0			17.0	2.4	12.1	9.4	7.1			
LOS	C	B			B	A	B	A	A			
Approach Delay		18.4			15.8			10.6				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

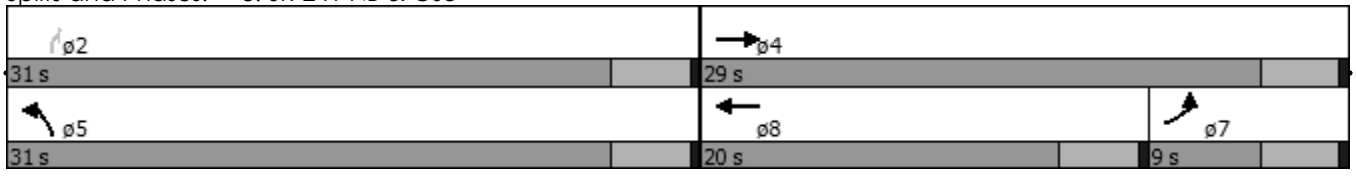


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	910	0	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	910	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	653	0	958	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.0	19.5			16.2		27.1		27.1			
Actuated g/C Ratio	0.09	0.36			0.30		0.50		0.50			
v/c Ratio	0.13	0.69			0.44		0.56		0.29			
Control Delay	25.7	18.1			16.8		12.1		7.0			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.7	18.1			16.8		12.1		7.0			
LOS	C	B			B		B		A			
Approach Delay		18.4			16.8							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 93.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

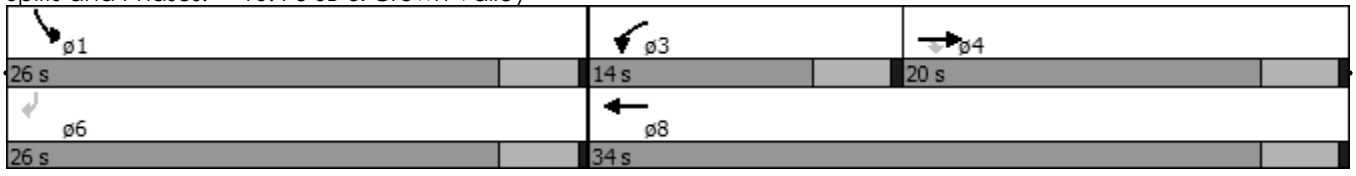


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1940	260	540	1260	0	0	0	0	1130	0	990
Future Volume (vph)	0	1940	260	540	1260	0	0	0	0	1130	0	990
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			274									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2042	274	568	1326	0	0	0	0	1189	0	1042
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		1.02	0.45	0.99	0.52					0.65		0.97
Control Delay		47.9	5.5	64.6	11.1					17.8		39.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		47.9	5.5	64.6	11.1					17.8		39.9
LOS		D	A	E	B					B		D
Approach Delay		42.9			27.1							
Approach LOS		D			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 33.1		Intersection LOS: C	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 10: I-5 SB & Crown Valley

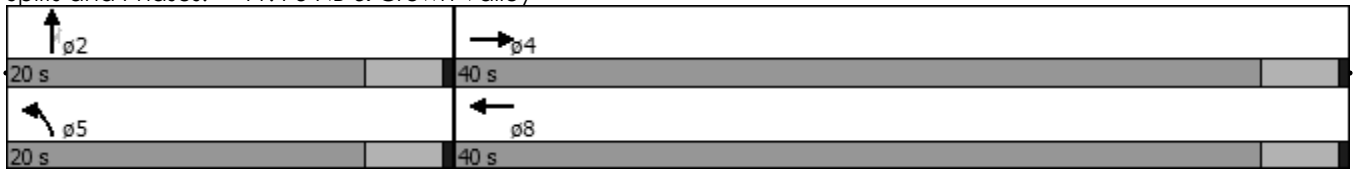


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2360	700	0	1590	1520	230	0	410	0	0	0
Future Volume (vph)	0	2360	700	0	1590	1520	230	0	410	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5962	1283	0	4570	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	5962	1260	0	4570	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39	567		359	800		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			23%			50%	10%		48%			
Lane Group Flow (vph)	0	2654	567	0	2474	800	218	231	225	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.74	0.45		0.86	0.59	0.49	0.57	0.54			
Control Delay		10.1	1.2		12.4	1.9	23.0	24.2	23.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.1	1.2		12.4	1.9	23.0	24.2	23.1			
LOS		B	A		B	A	C	C	C			
Approach Delay		8.5			9.8			23.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

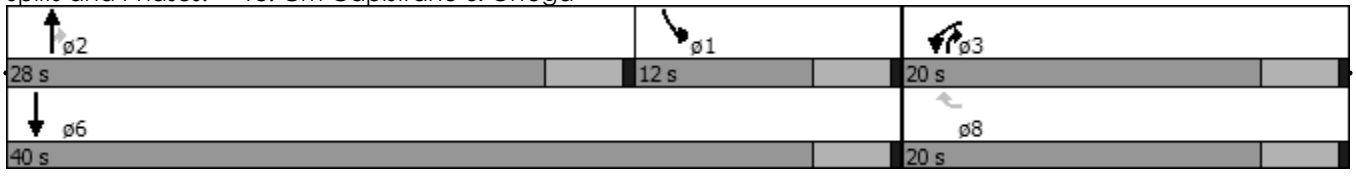


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	200	450	140	140	510
Future Volume (vph)	130	200	450	140	140	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211		147		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	211	474	147	147	537
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	28.0	20.0	12.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	26.7	36.6	7.7	36.1
Actuated g/C Ratio	0.18	0.18	0.50	0.68	0.14	0.67
v/c Ratio	0.42	0.48	0.51	0.13	0.58	0.43
Control Delay	23.3	7.3	14.0	0.8	34.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	7.3	14.0	0.8	34.1	6.2
LOS	C	A	B	A	C	A
Approach Delay	13.6		10.9			12.2
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 51.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

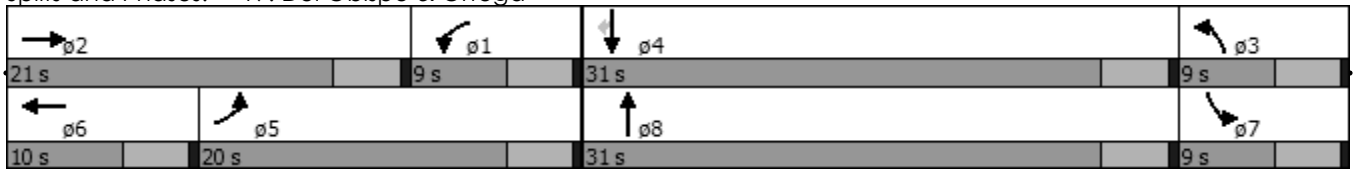


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	620	10	40	20	10	20	50	920	20	10	1120	470
Future Volume (vph)	620	10	40	20	10	20	50	920	20	10	1120	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			21			5				467
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	653	53	0	21	32	0	53	989	0	11	1179	495
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		9.0	31.0		9.0	31.0	31.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.2	15.7		6.5	5.8		5.0	34.7		5.0	27.2	27.2
Actuated g/C Ratio	0.24	0.25		0.10	0.09		0.08	0.55		0.08	0.43	0.43
v/c Ratio	0.79	0.12		0.12	0.18		0.38	0.36		0.08	0.77	0.54
Control Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	21.2	4.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	3.0	0.1
Total Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	24.3	4.8
LOS	C	B		C	B		D	B		C	C	A
Approach Delay		30.5			23.0			11.4			18.6	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 63.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 69.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

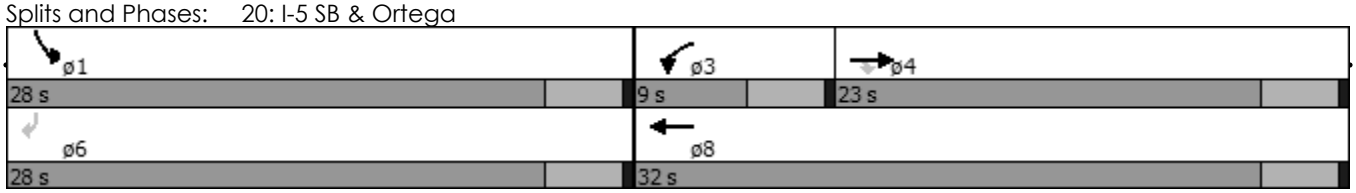


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰↰	↑↑					↰↰		↱↱
Traffic Volume (vph)	0	1410	150	70	950	0	0	0	0	1030	0	660
Future Volume (vph)	0	1410	150	70	950	0	0	0	0	1030	0	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									124
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	158	74	1000	0	0	0	0	1084	0	695
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	9.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.9	18.9	5.0	24.0					24.2		24.2
Actuated g/C Ratio		0.34	0.34	0.09	0.43					0.43		0.43
v/c Ratio		0.79	0.25	0.24	0.63					0.72		0.49
Control Delay		21.6	4.4	27.4	14.4					17.5		11.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.6	4.4	27.4	14.4					17.5		11.4
LOS		C	A	C	B					B		B
Approach Delay		19.9			15.3							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 16.9 Intersection LOS: B
Intersection Capacity Utilization 75.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

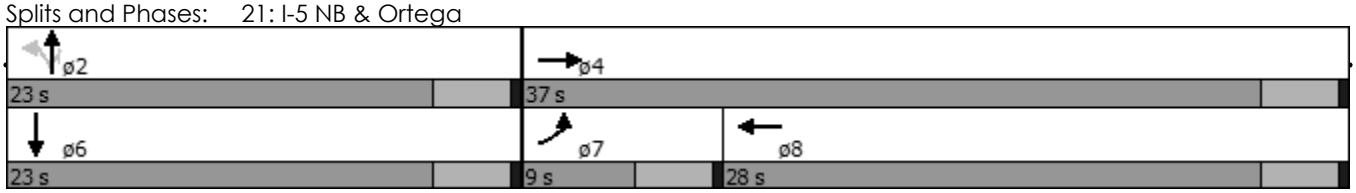


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1620	800	0	1780	10	230	10	270	0	0	10
Future Volume (vph)	10	1620	800	0	1780	10	230	10	270	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5405	1583	0	5529	0	0	1760	1583	0	1611	0
Flt Permitted	0.950							0.748				
Satd. Flow (perm)	1770	5405	1555	0	5529	0	0	1372	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92	573		2			10	91		189	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			32%						10%			
Lane Group Flow (vph)	11	1974	573	0	1885	0	0	281	256	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	37.0			28.0		23.0	23.0	23.0		23.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	31.4	58.5		29.7			19.1	19.1		19.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.33	0.33		0.33	
v/c Ratio	0.07	0.67	0.37		0.67			0.62	0.44		0.02	
Control Delay	26.6	10.6	0.7		13.2			23.9	13.3		0.0	
Queue Delay	0.0	47.9	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.6	58.5	0.7		13.2			23.9	13.3		0.0	
LOS	C	E	A		B			C	B		A	
Approach Delay		45.4			13.2			18.8			0.0	
Approach LOS		D			B			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 30.3 Intersection LOS: C
Intersection Capacity Utilization 69.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

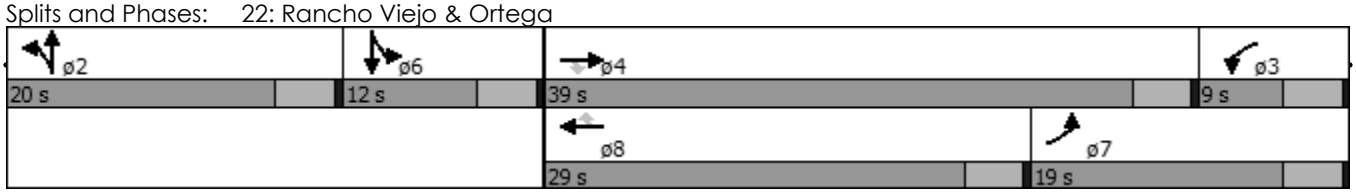


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	1410	390	60	1180	140	430	90	50	160	120	140
Future Volume (vph)	160	1410	390	60	1180	140	430	90	50	160	120	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1736	0	1770	3432	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1736	0	1770	3432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			363			177		31			147	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	168	1484	411	63	1242	147	453	148	0	151	290	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	19.0	39.0	39.0	9.0	29.0	29.0	20.0	20.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	14.0	34.8	34.8	5.0	23.8	23.8	16.0	16.0		8.0	8.0	
Actuated g/C Ratio	0.18	0.45	0.45	0.06	0.31	0.31	0.21	0.21		0.10	0.10	
v/c Ratio	0.53	0.91	0.47	0.56	0.74	0.24	0.62	0.39		0.83	0.60	
Control Delay	36.0	30.7	4.6	56.7	27.5	3.3	33.1	25.2		71.7	22.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	36.0	30.7	4.6	56.7	27.5	3.3	33.1	25.2		71.7	22.6	
LOS	D	C	A	E	C	A	C	C		E	C	
Approach Delay		25.9			26.4			31.2			39.5	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 77.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 28.1 Intersection LOS: C
Intersection Capacity Utilization 78.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

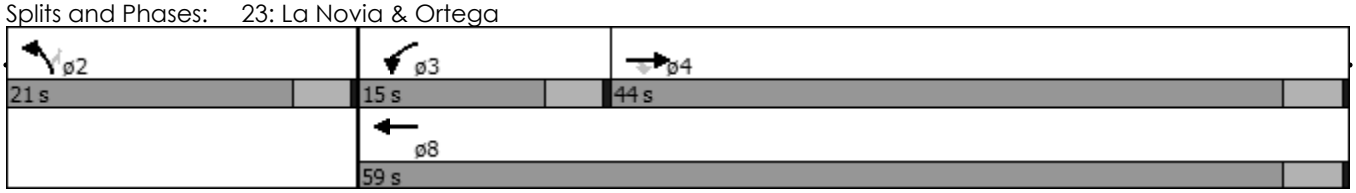


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1500	230	180	1190	230	130
Future Volume (vph)	1500	230	180	1190	230	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1474	1770	3471	3433	1518
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		152				137
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1579	242	189	1253	242	137
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	44.0	44.0	15.0	59.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	39.4	39.4	10.7	54.1	17.0	17.0
Actuated g/C Ratio	0.50	0.50	0.14	0.68	0.21	0.21
v/c Ratio	0.91	0.30	0.79	0.53	0.33	0.32
Control Delay	28.2	5.6	58.6	7.2	28.0	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	5.6	58.6	7.2	28.0	7.4
LOS	C	A	E	A	C	A
Approach Delay	25.2			13.9	20.5	
Approach LOS	C			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 20.2 Intersection LOS: C
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

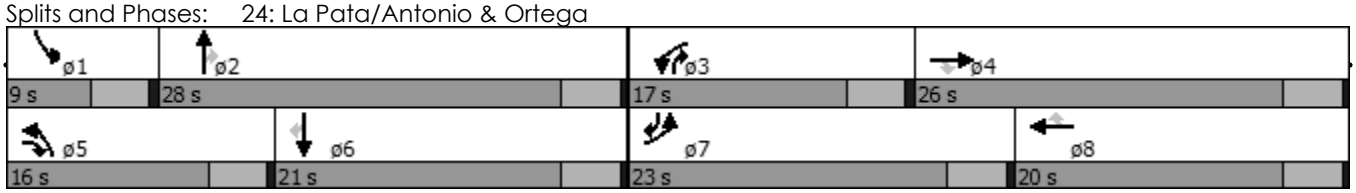


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	690	570	270	140	170	10	430	860	230	10	970	650
Future Volume (vph)	690	570	270	140	170	10	430	860	230	10	970	650
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1518	1770	3654	1518	3539	5588	1518	1770	5588	2948
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			232			123			357
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	726	600	284	147	179	11	453	905	242	11	1021	684
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	23.0	26.0	16.0	17.0	20.0	20.0	16.0	28.0	17.0	9.0	21.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.4	18.6	30.5	10.7	10.9	10.9	11.9	31.3	42.0	5.0	17.1	35.5
Actuated g/C Ratio	0.25	0.25	0.41	0.14	0.15	0.15	0.16	0.42	0.57	0.07	0.23	0.48
v/c Ratio	0.83	0.66	0.41	0.58	0.33	0.03	0.80	0.38	0.26	0.09	0.80	0.42
Control Delay	36.9	29.1	10.1	39.9	30.0	0.1	43.6	16.8	4.8	36.6	33.5	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	29.1	10.1	39.9	30.0	0.1	43.6	16.8	4.8	36.6	33.5	5.9
LOS	D	C	B	D	C	A	D	B	A	D	C	A
Approach Delay		29.2			33.3			22.6			22.5	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 74.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 24: La Pata/Antonio & Ortega

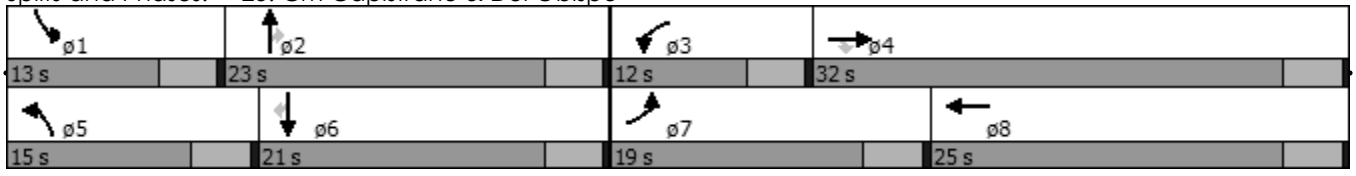


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Future Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3509	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3509	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			263		5				177			303
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	663	263	168	832	0	379	221	158	84	158	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	32.0	32.0	12.0	25.0		15.0	23.0	23.0	13.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.2	27.2	27.2	7.7	20.7		10.9	21.9	21.9	8.0	17.0	17.0
Actuated g/C Ratio	0.18	0.35	0.35	0.10	0.26		0.14	0.28	0.28	0.10	0.22	0.22
v/c Ratio	0.82	0.54	0.38	0.50	0.90		0.80	0.43	0.29	0.46	0.39	0.75
Control Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
LOS	D	C	A	D	D		D	C	A	D	C	B
Approach Delay		25.6			42.2			33.2			24.2	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 72.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

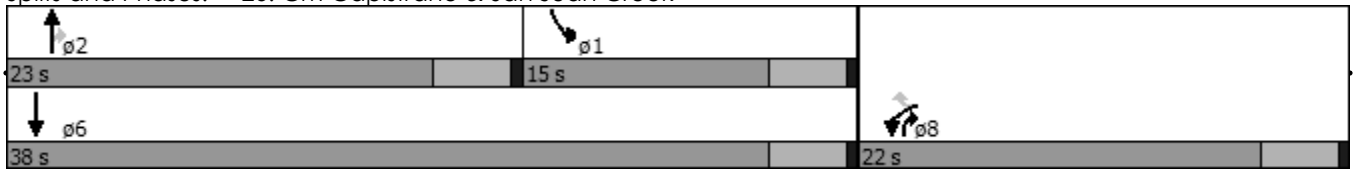


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	480	400	430	350	320	560
Future Volume (vph)	480	400	430	350	320	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3329	1441	3539	1583	3433	3539
Flt Permitted	0.962				0.950	
Satd. Flow (perm)	3329	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	57	290		70		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		31%				
Lane Group Flow (vph)	636	290	453	368	337	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.4	15.4	19.1	34.4	11.0	34.1
Actuated g/C Ratio	0.27	0.27	0.33	0.60	0.19	0.59
v/c Ratio	0.68	0.50	0.39	0.38	0.51	0.28
Control Delay	21.1	5.8	16.5	4.6	24.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	5.8	16.5	4.6	24.6	6.6
LOS	C	A	B	A	C	A
Approach Delay	16.3		11.2			13.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 13.6 Intersection LOS: B
Intersection Capacity Utilization 50.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

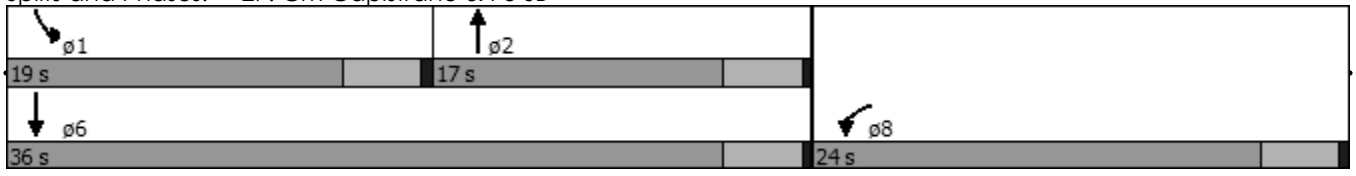


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	750	380	440	60	490	550
Future Volume (vph)	750	380	440	60	490	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		400		63		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	789	400	463	63	516	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		17.0		19.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	57.6	15.0	57.6	13.1	32.1
Actuated g/C Ratio	0.30	1.00	0.26	1.00	0.23	0.56
v/c Ratio	0.76	0.25	0.50	0.04	0.66	0.29
Control Delay	23.4	0.4	21.6	0.1	24.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	0.4	21.6	0.1	24.9	7.7
LOS	C	A	C	A	C	A
Approach Delay	15.6		19.1			15.8
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 57.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

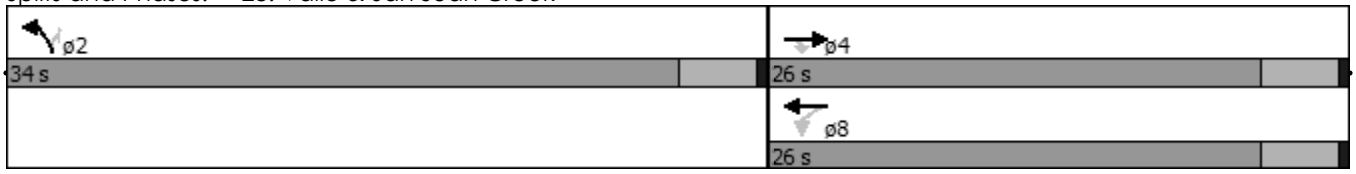


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	350	320	70	510	460	220
Future Volume (vph)	350	320	70	510	460	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.778	0.950	
Satd. Flow (perm)	1863	1493	0	2754	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		337				232
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	337	0	611	484	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	26.0	26.0	26.0	26.0	34.0	34.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.7	16.7		16.7	30.2	30.2
Actuated g/C Ratio	0.30	0.30		0.30	0.55	0.55
v/c Ratio	0.65	0.49		0.73	0.50	0.24
Control Delay	22.2	4.7		22.5	10.9	2.1
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	22.2	4.7		22.5	10.9	2.1
LOS	C	A		C	B	A
Approach Delay	13.8			22.5	8.0	
Approach LOS	B			C	A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

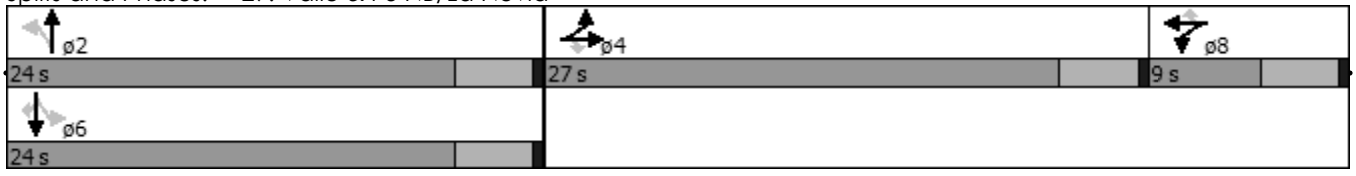


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Future Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1785	1583	0	1796	1583	1770	1802	0	0	1833	1583
Flt Permitted		0.958			0.964		0.560				0.844	
Satd. Flow (perm)	0	1785	1583	0	1796	1583	1043	1802	0	0	1572	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			95		17				200
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	453	84	0	43	95	168	200	0	0	252	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	27.0	27.0	27.0	9.0	9.0	9.0	24.0	24.0		24.0	24.0	24.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.8	17.8		5.1	5.1	20.6	20.6			20.6	20.6
Actuated g/C Ratio		0.33	0.33		0.10	0.10	0.39	0.39			0.39	0.39
v/c Ratio		0.76	0.14		0.25	0.40	0.42	0.28			0.42	0.27
Control Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
LOS		C	A		C	B	B	B			B	A
Approach Delay		22.0			17.8			16.4			11.3	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 66.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 29: Valle & I-5 NB/La Novia

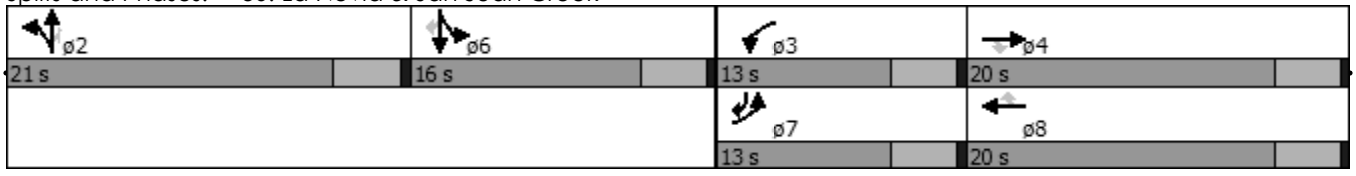


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Future Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1484	1770	1863	1484	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			140			263			140			263
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	105	11	105	105	263	95	179	11	211	179	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	13.0	20.0	20.0	13.0	20.0	20.0	21.0	21.0	21.0	16.0	16.0	13.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.6	11.9	11.9	8.0	9.2	9.2	17.1	17.1	17.1	12.0	12.0	24.7
Actuated g/C Ratio	0.14	0.19	0.19	0.13	0.15	0.15	0.27	0.27	0.27	0.19	0.19	0.39
v/c Ratio	0.65	0.30	0.03	0.46	0.39	0.60	0.20	0.36	0.02	0.62	0.50	0.34
Control Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
LOS	D	C	A	C	C	A	C	C	A	C	C	A
Approach Delay		34.0			19.2			20.6			20.6	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 63			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

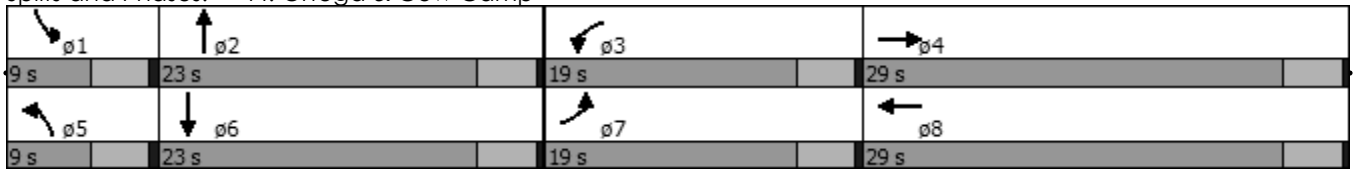


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	570	410	10	170	930	100	10	640	50	30	90	470
Future Volume (vph)	570	410	10	170	930	100	10	640	50	30	90	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			16			10			413	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	600	443	0	179	1084	0	11	727	0	32	590	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	19.0	29.0		19.0	29.0		9.0	23.0		9.0	23.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	14.9	27.6		12.0	24.8		5.0	19.1		5.0	20.7	
Actuated g/C Ratio	0.20	0.37		0.16	0.33		0.07	0.26		0.07	0.28	
v/c Ratio	0.85	0.32		0.63	0.88		0.09	0.76		0.27	0.50	
Control Delay	42.6	18.7		39.4	34.0		36.6	32.4		40.7	8.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	42.6	18.7		39.4	34.0		36.6	32.4		40.7	8.6	
LOS	D	B		D	C		D	C		D	A	
Approach Delay		32.4			34.8			32.5			10.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 80.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp



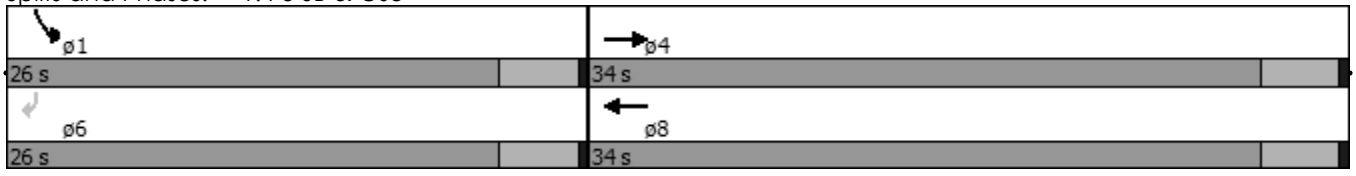
HCM Signalized Intersection Data Set 5
Alternative Existing Baseline –
Project Alternative 3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Future Volume (vph)	0	960	510	0	1510	650	0	0	0	570	0	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			537			684						25
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1011	537	0	1589	684	0	0	0	600	0	295
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		34.0			34.0					26.0		26.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		26.2	56.3		26.2	56.3				22.1		22.1
Actuated g/C Ratio		0.47	1.00		0.47	1.00				0.39		0.39
v/c Ratio		0.43	0.35		0.67	0.43				0.45		0.27
Control Delay		10.5	0.6		13.2	0.9				14.7		12.3
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		10.5	0.6		13.2	0.9				14.7		12.3
LOS		B	A		B	A				B		B
Approach Delay		7.1			9.5							
Approach LOS		A			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 52.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

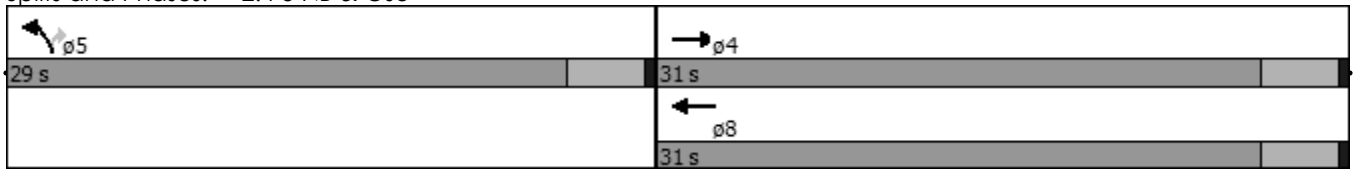


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1120	410	0	1790	1380	370	0	430	0	0	0
Future Volume (vph)	0	1120	410	0	1790	1380	370	0	430	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			432			1091			28			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1179	432	0	1884	1453	389	0	453	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		31.0			31.0		29.0		29.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		26.1	53.4		26.1	53.4	19.2		19.2			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.36		0.36			
v/c Ratio		0.48	0.28		0.76	0.92	0.32		0.77			
Control Delay		10.7	0.5		14.6	12.3	12.9		24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		10.7	0.5		14.6	12.3	12.9		24.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.0			13.6							
Approach LOS		A			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 54.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

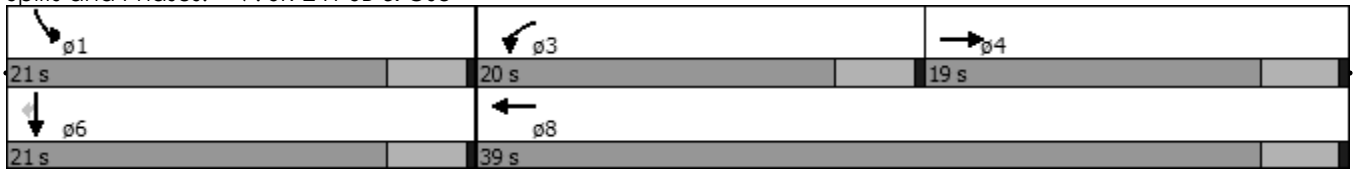


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰↰	↑↑	↱
Traffic Volume (vph)	0	780	880	230	2010	0	0	0	0	40	480	60
Future Volume (vph)	0	780	880	230	2010	0	0	0	0	40	480	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	926	242	2116	0	0	0	0	42	505	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		20.0	39.0					21.0	21.0	21.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.8	58.6	12.7	33.5					10.2	17.1	17.1
Actuated g/C Ratio		0.29	1.00	0.22	0.57					0.17	0.29	0.29
v/c Ratio		0.56	0.58	0.63	0.73					0.07	0.49	0.12
Control Delay		20.1	1.6	28.5	10.9					18.2	19.6	3.1
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		20.1	1.6	28.5	10.9					18.2	19.6	3.1
LOS		C	A	C	B					B	B	A
Approach Delay		10.3			12.7						17.8	
Approach LOS		B			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 12.5 Intersection LOS: B
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

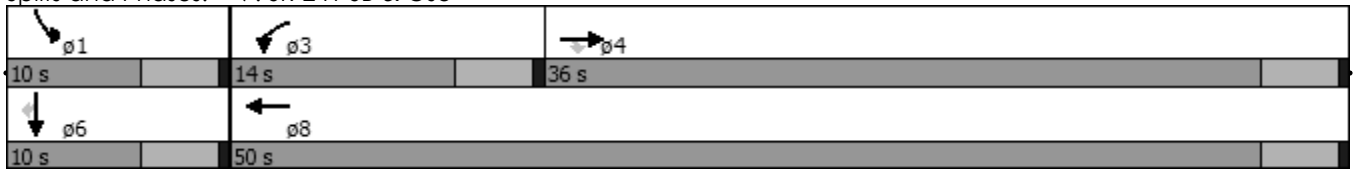


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	780	880	230	2010	0	0	0	0	40	0	60
Future Volume (vph)	0	780	880	230	2010	0	0	0	0	40	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Flt Permitted				0.950						0.950	0.993	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1468	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			482								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										13%		46%
Lane Group Flow (vph)	0	821	926	242	2116	0	0	0	0	37	34	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		36.0	36.0	14.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		27.9	27.9	9.8	41.8					5.9	2.2	6.1
Actuated g/C Ratio		0.50	0.50	0.18	0.75					0.11	0.04	0.11
v/c Ratio		0.32	0.90	0.78	0.56					0.21	0.23	0.14
Control Delay		8.5	19.7	44.4	3.6					27.9	3.8	1.3
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		8.5	19.7	44.4	3.6					27.9	3.8	1.3
LOS		A	B	D	A					C	A	A
Approach Delay		14.4			7.8						11.5	
Approach LOS		B			A						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 81.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

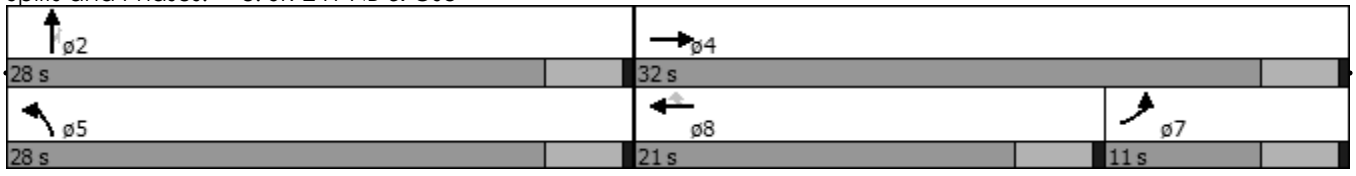


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	1040	810	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	1040	810	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1221	337	1095	853	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	11.0	32.0			21.0	21.0	28.0	28.0	28.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	7.0	28.0			17.0	17.0	24.0	24.0	24.0			
Actuated g/C Ratio	0.12	0.47			0.28	0.28	0.40	0.40	0.40			
v/c Ratio	0.76	0.34			0.85	0.68	0.80	0.60	0.11			
Control Delay	40.5	10.9			27.6	22.0	21.5	16.5	2.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	40.5	10.9			27.6	22.0	21.5	16.5	2.9			
LOS	D	B			C	C	C	B	A			
Approach Delay		21.2			26.4			18.7				
Approach LOS		C			C			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 21.9 Intersection LOS: C
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

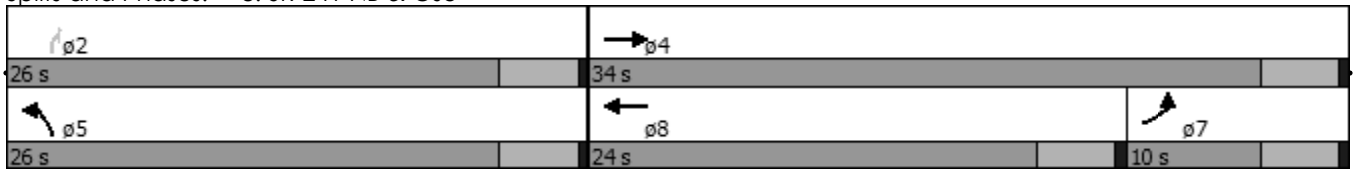


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	540	0	0	1160	320	1040	0	70	0	0	0
Future Volume (vph)	290	540	0	0	1160	320	1040	0	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4886	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					124				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	568	0	0	1558	0	1095	0	74	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	10.0	34.0			24.0		26.0		26.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	6.0	30.0			20.0		22.0		22.0			
Actuated g/C Ratio	0.10	0.50			0.33		0.37		0.37			
v/c Ratio	0.89	0.32			0.91		0.87		0.12			
Control Delay	57.5	9.6			27.6		27.4		3.2			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	57.5	9.6			27.6		27.4		3.2			
LOS	E	A			C		C		A			
Approach Delay		26.3			27.6							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 81.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

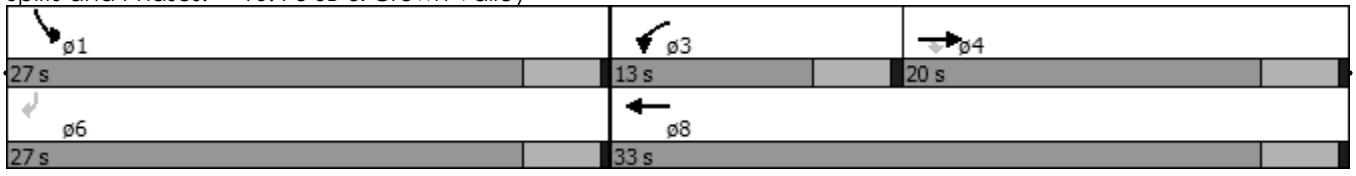


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1410	210	360	1220	0	0	0	0	1290	0	790
Future Volume (vph)	0	1410	210	360	1220	0	0	0	0	1290	0	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	221	379	1284	0	0	0	0	1358	0	832
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.74	0.39	0.74	0.52					0.71		0.74
Control Delay		22.7	5.3	34.9	11.7					18.2		18.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		22.7	5.3	34.9	11.7					18.2		18.9
LOS		C	A	C	B					B		B
Approach Delay		20.4			17.0							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 18.6 Intersection LOS: B
Intersection Capacity Utilization 61.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

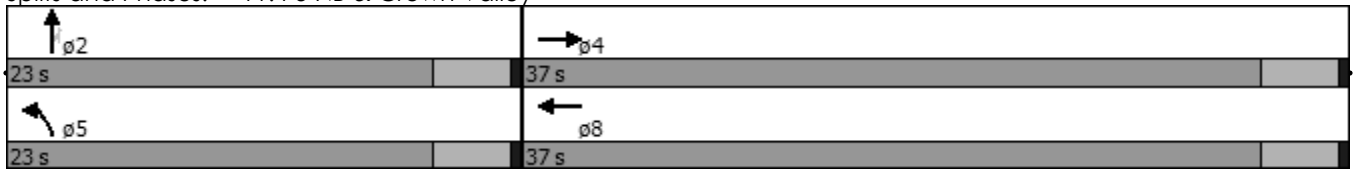


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	590	0	1400	1210	190	0	490	0	0	0
Future Volume (vph)	0	2100	590	0	1400	1210	190	0	490	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5977	1283	0	4590	1362	1681	1454	1504	0	0	0
Flt Permitted							0.950	0.996				
Satd. Flow (perm)	0	5977	1260	0	4590	1362	1681	1454	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26	503		289	637		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			19%			50%	10%		48%			
Lane Group Flow (vph)	0	2329	503	0	2111	637	180	268	268	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		37.0			37.0		23.0	23.0	23.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		33.0	60.0		33.0	60.0	19.0	19.0	19.0			
Actuated g/C Ratio		0.55	1.00		0.55	1.00	0.32	0.32	0.32			
v/c Ratio		0.71	0.40		0.80	0.47	0.34	0.57	0.55			
Control Delay		11.3	0.9		12.0	1.2	17.9	21.5	20.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		11.3	0.9		12.0	1.2	17.9	21.5	20.9			
LOS		B	A		B	A	B	C	C			
Approach Delay		9.5			9.5			20.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

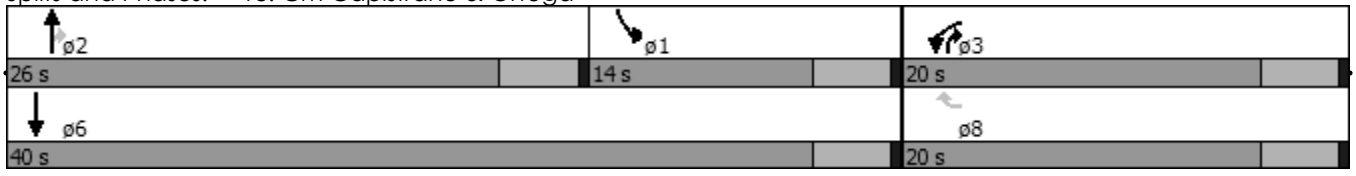


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	180	190	360	120	130	540
Future Volume (vph)	180	190	360	120	130	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		200		126		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	200	379	126	137	568
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	26.0	20.0	14.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.1	11.1	25.1	36.2	9.2	36.1
Actuated g/C Ratio	0.20	0.20	0.45	0.66	0.17	0.65
v/c Ratio	0.53	0.44	0.45	0.12	0.47	0.47
Control Delay	25.4	6.6	14.9	1.0	27.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	6.6	14.9	1.0	27.1	7.0
LOS	C	A	B	A	C	A
Approach Delay	15.7		11.5			10.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 12.2 Intersection LOS: B
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

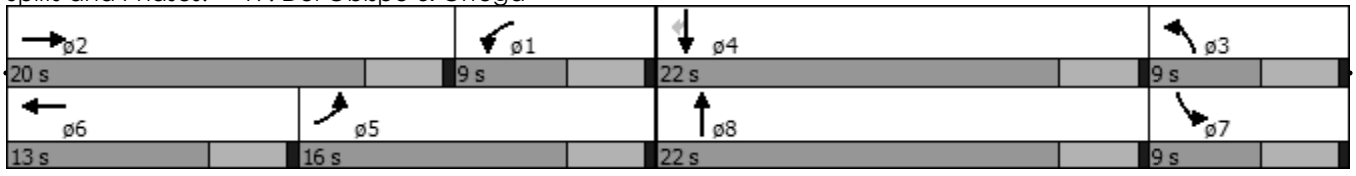


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	10	40	10	10	10	30	980	10	10	810	620
Future Volume (vph)	380	10	40	10	10	10	30	980	10	10	810	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1597	0	1770	1723	0	1770	5072	0	1770	3539	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			11			3				653
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	400	53	0	11	22	0	32	1043	0	11	853	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	16.0	20.0		9.0	13.0		9.0	22.0		9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	10.2	9.6		6.0	6.0		5.1	25.9		5.1	18.2	18.2
Actuated g/C Ratio	0.21	0.20		0.13	0.13		0.11	0.55		0.11	0.38	0.38
v/c Ratio	0.54	0.15		0.05	0.10		0.17	0.38		0.06	0.63	0.66
Control Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.9	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.2	10.2		19.7	16.5		24.1	8.8		22.7	15.9	5.4
LOS	C	B		B	B		C	A		C	B	A
Approach Delay		19.1			17.6			9.2			11.5	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 47.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 19: Del Obispo & Ortega

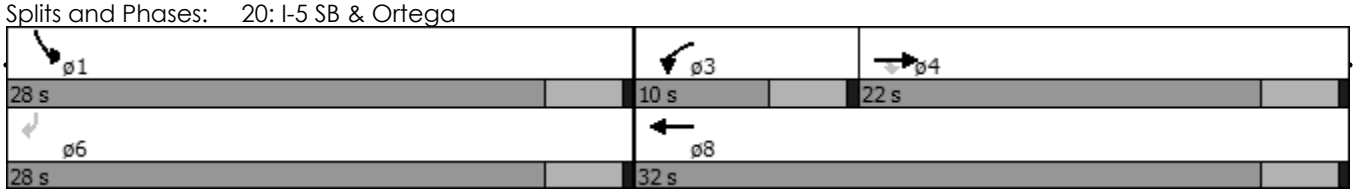


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1230	150	170	880	0	0	0	0	920	0	560
Future Volume (vph)	0	1230	150	170	880	0	0	0	0	920	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									155
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1295	158	179	926	0	0	0	0	968	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		22.0	22.0	10.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.0	18.0	6.0	25.7					24.2		24.2
Actuated g/C Ratio		0.31	0.31	0.10	0.44					0.42		0.42
v/c Ratio		0.75	0.27	0.49	0.56					0.66		0.42
Control Delay		21.6	4.7	30.4	13.2					17.0		10.2
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.6	4.7	30.4	13.2					17.0		10.2
LOS		C	A	C	B					B		B
Approach Delay		19.8			16.0							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 64.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

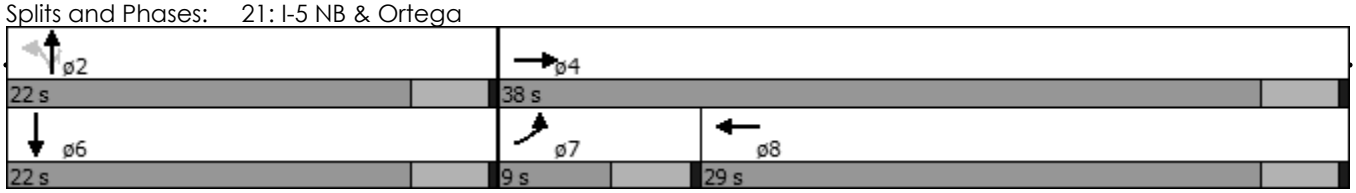


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1480	680	0	2200	10	270	10	350	0	0	10
Future Volume (vph)	10	1480	680	0	2200	10	270	10	350	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5419	1583	0	5529	0	0	1751	1583	0	1611	0
Flt Permitted	0.950							0.757				
Satd. Flow (perm)	1770	5419	1555	0	5529	0	0	1379	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76	508		1			15	91		182	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			29%						14%			
Lane Group Flow (vph)	11	1766	508	0	2327	0	0	347	316	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	38.0			29.0		22.0	22.0	22.0		22.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.2	56.3		28.5			18.1	18.1		18.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.32	0.32		0.32	
v/c Ratio	0.07	0.60	0.33		0.83			0.77	0.55		0.02	
Control Delay	26.4	9.4	0.6		16.9			31.9	16.3		0.0	
Queue Delay	0.0	4.6	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.4	14.0	0.6		16.9			31.9	16.3		0.0	
LOS	C	B	A		B			C	B		A	
Approach Delay		11.1			16.9			24.5			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 15.3 Intersection LOS: B
Intersection Capacity Utilization 78.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

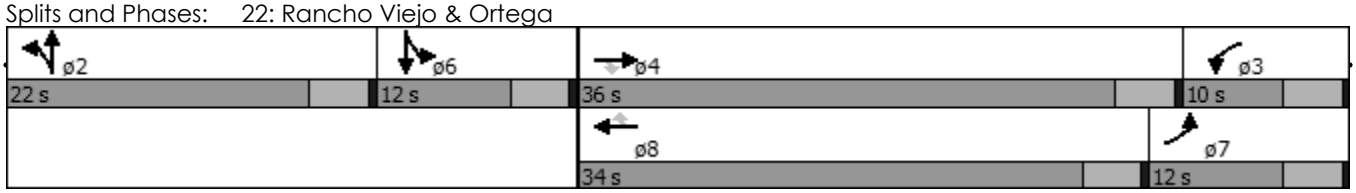


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1240	440	70	1810	240	280	150	40	170	150	100
Future Volume (vph)	140	1240	440	70	1810	240	280	150	40	170	150	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1787	0	1770	3507	0
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1787	0	1770	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			436			253		15			105	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										17%		
Lane Group Flow (vph)	147	1305	463	74	1905	253	295	200	0	149	293	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	12.0	36.0	36.0	10.0	34.0	34.0	22.0	22.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	8.0	34.0	34.0	5.9	30.0	30.0	18.0	18.0		8.0	8.0	
Actuated g/C Ratio	0.10	0.42	0.42	0.07	0.38	0.38	0.22	0.22		0.10	0.10	
v/c Ratio	0.83	0.84	0.52	0.57	0.93	0.34	0.37	0.48		0.84	0.66	
Control Delay	72.7	27.9	4.7	54.1	33.5	3.8	27.8	29.5		74.4	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	72.7	27.9	4.7	54.1	33.5	3.8	27.8	29.5		74.4	29.8	
LOS	E	C	A	D	C	A	C	C		E	C	
Approach Delay		25.7			30.8			28.5			44.8	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 29.9 Intersection LOS: C
Intersection Capacity Utilization 77.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

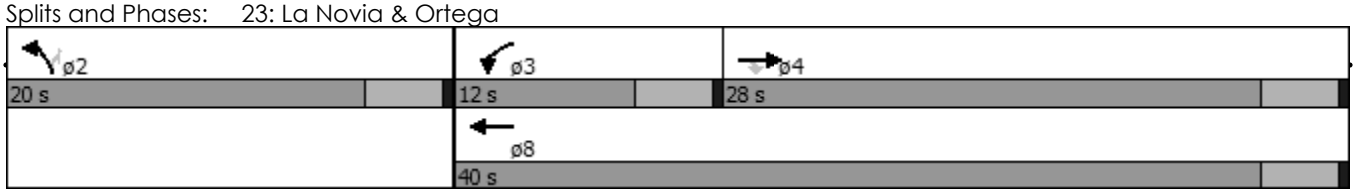


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1060	260	160	1870	300	150
Future Volume (vph)	1060	260	160	1870	300	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1493	1770	3471	3433	1529
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		271				158
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1116	274	168	1968	316	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	28.0	28.0	12.0	40.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	24.2	24.2	7.8	36.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40	0.13	0.60	0.27	0.27
v/c Ratio	0.80	0.36	0.73	0.95	0.35	0.30
Control Delay	21.4	3.4	45.9	23.3	19.1	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	3.4	45.9	23.3	19.1	5.4
LOS	C	A	D	C	B	A
Approach Delay	17.9			25.1	14.5	
Approach LOS	B			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 21.3 Intersection LOS: C
Intersection Capacity Utilization 71.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

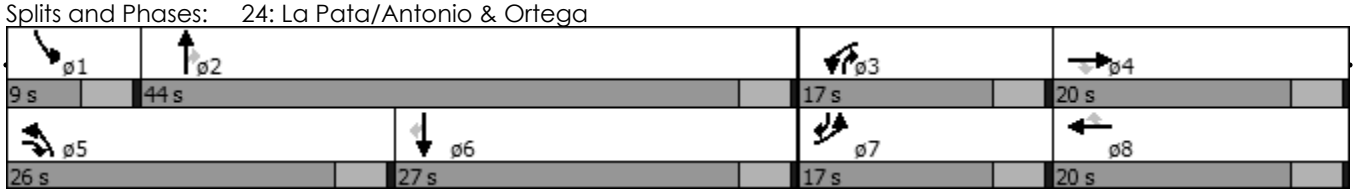


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	430	140	670	250	390	20	630	1020	140	10	1300	820
Future Volume (vph)	430	140	670	250	390	20	630	1020	140	10	1300	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			147			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	453	147	705	263	411	21	663	1074	147	11	1368	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	26.0	17.0	20.0	20.0	26.0	44.0	17.0	9.0	27.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.0	14.3	36.3	13.0	14.3	14.3	22.0	47.3	60.3	5.0	23.0	36.0
Actuated g/C Ratio	0.15	0.16	0.41	0.15	0.16	0.16	0.25	0.54	0.68	0.06	0.26	0.41
v/c Ratio	0.87	0.25	1.05	1.01	0.70	0.06	0.75	0.36	0.13	0.11	0.94	0.67
Control Delay	56.0	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	46.0	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	33.3	71.3	98.9	41.8	0.3	37.2	12.9	1.3	42.9	46.0	19.3
LOS	E	C	E	F	D	A	D	B	A	D	D	B
Approach Delay		61.7			62.2			20.6			35.7	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 39.6 Intersection LOS: D
Intersection Capacity Utilization 92.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

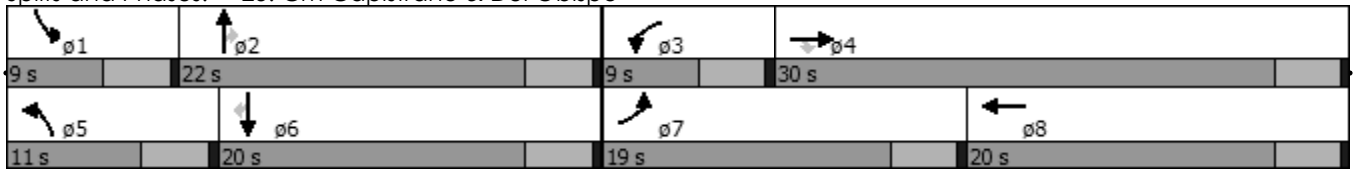


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Future Volume (vph)	360	800	270	70	600	10	310	210	50	40	200	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3525	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1524	3433	3525	0	3433	1863	1524	1770	1863	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284		2				203			386
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	842	284	74	643	0	326	221	53	42	211	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	30.0	30.0	9.0	20.0		11.0	22.0	22.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	27.3	27.3	5.0	15.4		7.0	21.6	21.6	5.0	16.0	16.0
Actuated g/C Ratio	0.22	0.39	0.39	0.07	0.22		0.10	0.31	0.31	0.07	0.23	0.23
v/c Ratio	0.99	0.61	0.37	0.30	0.82		0.94	0.38	0.09	0.33	0.49	0.70
Control Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	19.7	3.7	34.3	35.8		70.3	22.8	0.3	38.3	28.0	11.6
LOS	E	B	A	C	D		E	C	A	D	C	B
Approach Delay		30.6			35.6			46.6			18.1	
Approach LOS		C			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 31.9 Intersection LOS: C
Intersection Capacity Utilization 72.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 25: Cm Capistrano & Del Obispo

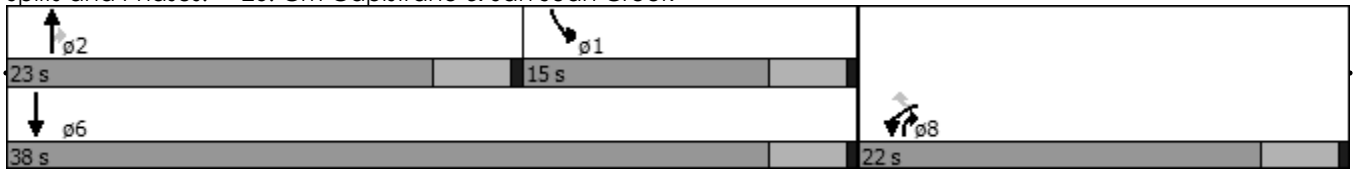


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	430	460	310	290	270	460
Future Volume (vph)	430	460	310	290	270	460
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3282	1441	3539	1583	3433	3539
Flt Permitted	0.966				0.950	
Satd. Flow (perm)	3282	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	114	295		105		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		39%				
Lane Group Flow (vph)	642	295	326	305	284	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.9	14.9	19.1	34.0	11.0	34.1
Actuated g/C Ratio	0.26	0.26	0.33	0.60	0.19	0.60
v/c Ratio	0.68	0.51	0.28	0.32	0.43	0.23
Control Delay	19.3	5.9	15.4	3.4	23.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.3	5.9	15.4	3.4	23.3	6.2
LOS	B	A	B	A	C	A
Approach Delay	15.1		9.6			12.5
Approach LOS	B		A			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 48.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

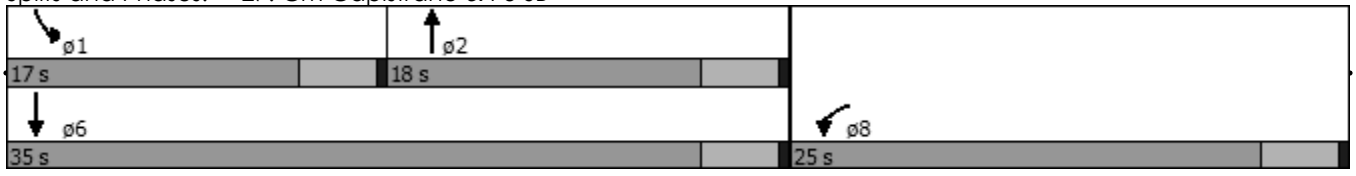


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	690	240	360	20	440	450
Future Volume (vph)	690	240	360	20	440	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		253		21		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	726	253	379	21	463	474
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	25.0		18.0		17.0	35.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	16.6	55.7	15.5	55.7	11.6	31.1
Actuated g/C Ratio	0.30	1.00	0.28	1.00	0.21	0.56
v/c Ratio	0.71	0.16	0.39	0.01	0.65	0.24
Control Delay	21.6	0.2	19.0	0.0	25.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	0.2	19.0	0.0	25.2	7.3
LOS	C	A	B	A	C	A
Approach Delay	16.0		18.0			16.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 52.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

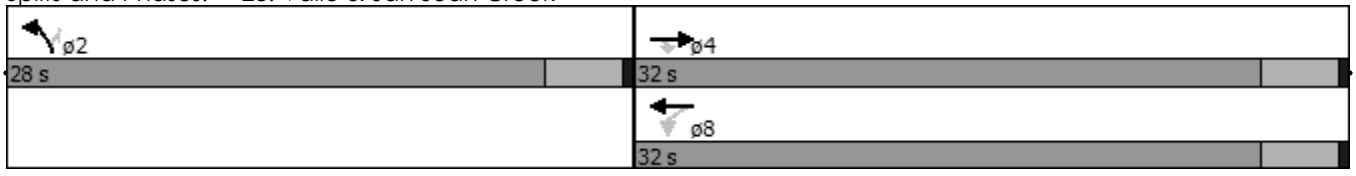


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	330	230	150	550	340	100
Future Volume (vph)	330	230	150	550	340	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.720	0.950	
Satd. Flow (perm)	1863	1493	0	2548	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		242				105
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	347	242	0	737	358	105
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	19.9	19.9		19.9	24.2	24.2
Actuated g/C Ratio	0.38	0.38		0.38	0.46	0.46
v/c Ratio	0.49	0.34		0.76	0.44	0.13
Control Delay	14.4	3.1		19.4	13.0	3.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	14.4	3.1		19.4	13.0	3.4
LOS	B	A		B	B	A
Approach Delay	9.8			19.4	10.8	
Approach LOS	A			B	B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 52.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

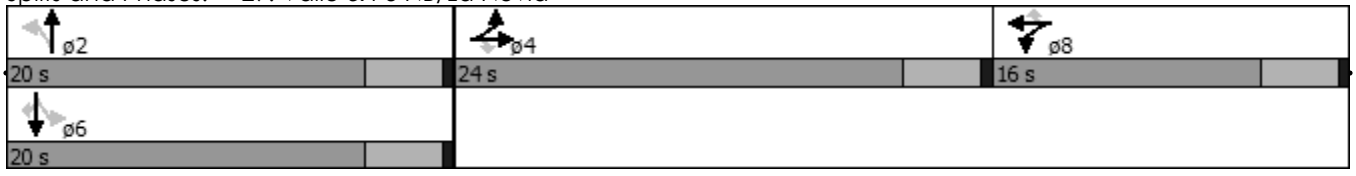


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Future Volume (vph)	310	30	70	10	160	50	70	70	10	10	180	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1781	1583	0	1857	1583	1770	1814	0	0	1857	1583
Flt Permitted		0.956			0.997		0.620				0.987	
Satd. Flow (perm)	0	1781	1583	0	1857	1583	1155	1814	0	0	1839	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			91		11				221
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	358	74	0	179	53	74	85	0	0	200	221
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	16.0	16.0	16.0	20.0	20.0		20.0	20.0	20.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		14.9	14.9		9.8	9.8	16.9	16.9			16.9	16.9
Actuated g/C Ratio		0.29	0.29		0.19	0.19	0.33	0.33			0.33	0.33
v/c Ratio		0.69	0.14		0.50	0.14	0.19	0.14			0.33	0.33
Control Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		24.4	3.7		26.0	3.2	18.0	15.0			18.3	4.8
LOS		C	A		C	A	B	B			B	A
Approach Delay		20.9			20.8			16.4			11.2	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 51
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia

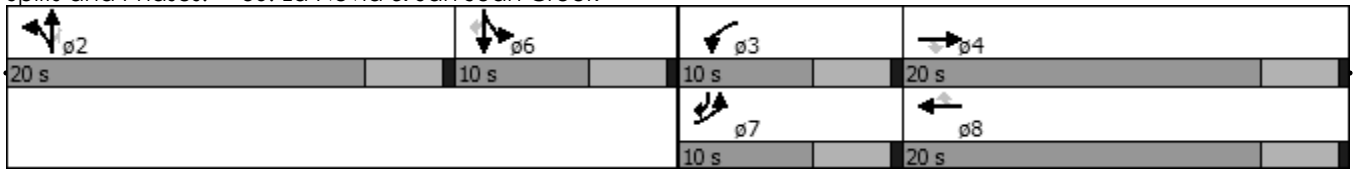


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Future Volume (vph)	170	120	90	50	220	280	120	180	40	150	150	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			295			164			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	126	95	53	232	295	126	189	42	158	158	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.3	16.3	5.9	12.1	12.1	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.10	0.22	0.22	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.95	0.23	0.16	0.28	0.58	0.53	0.25	0.36	0.08	0.84	0.79	0.46
Control Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	18.4	1.6	28.7	25.9	6.7	18.2	19.3	0.3	64.7	57.6	5.2
LOS	F	B	A	C	C	A	B	B	A	E	E	A
Approach Delay		44.4			16.4			16.7			33.6	
Approach LOS		D			B			B			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

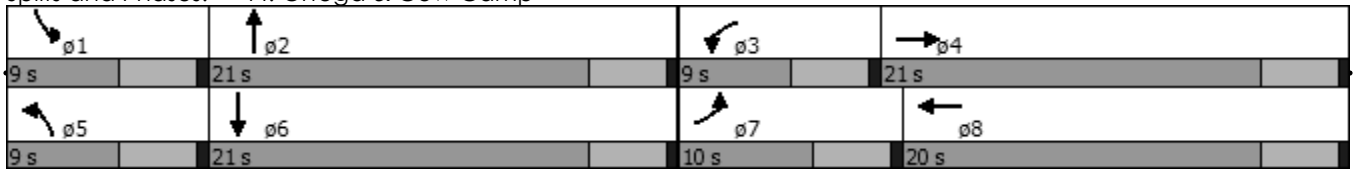


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	830	10	30	280	20	10	50	180	120	570	480
Future Volume (vph)	330	830	10	30	280	20	10	50	180	120	570	480
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3680	0	1770	3202	0	1770	3414	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3680	0	1770	3202	0	1770	3414	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			13			189			352	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	885	0	32	316	0	11	242	0	126	1105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	10.0	21.0		9.0	20.0		9.0	21.0		9.0	21.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	6.0	18.0		5.0	11.3		5.0	17.1		5.0	24.5	
Actuated g/C Ratio	0.11	0.32		0.09	0.20		0.09	0.31		0.09	0.44	
v/c Ratio	0.90	0.73		0.20	0.42		0.07	0.22		0.79	0.65	
Control Delay	56.8	22.6		28.2	19.8		26.1	5.4		63.5	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	56.8	22.6		28.2	19.8		26.1	5.4		63.5	12.6	
LOS	E	C		C	B		C	A		E	B	
Approach Delay		32.2			20.5			6.3			17.8	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp

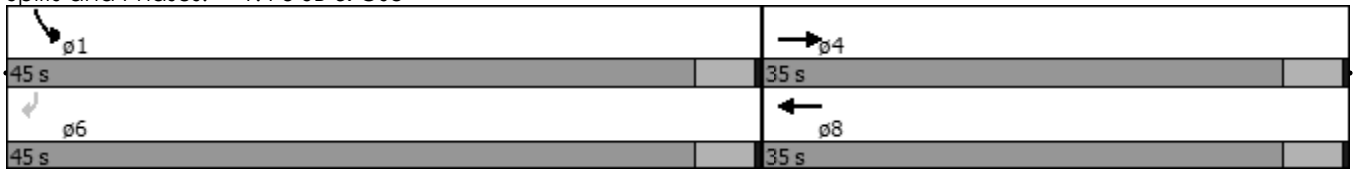


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1530	520	0	1410	470	0	0	0	1300	0	270
Future Volume (vph)	0	1530	520	0	1410	470	0	0	0	1300	0	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			459			495						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1611	547	0	1484	495	0	0	0	1368	0	284
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		35.0			35.0					45.0		45.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		30.3	79.3		30.3	79.3				41.0		41.0
Actuated g/C Ratio		0.38	1.00		0.38	1.00				0.52		0.52
v/c Ratio		0.83	0.36		0.76	0.31				0.77		0.20
Control Delay		26.7	0.6		24.5	0.5				19.3		10.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.7	0.6		24.5	0.5				19.3		10.4
LOS		C	A		C	A				B		B
Approach Delay		20.1			18.5							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 73.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

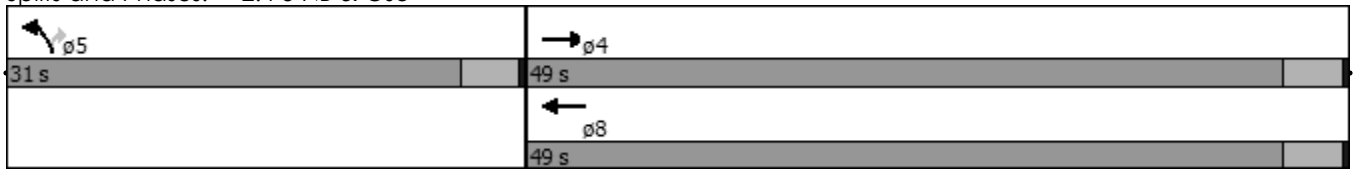


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2470	340	0	1290	920	590	0	440	0	0	0
Future Volume (vph)	0	2470	340	0	1290	920	590	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166			968			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2600	358	0	1358	968	621	0	463	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		49.0			49.0		31.0		31.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		45.1	78.1		45.1	78.1	25.0		25.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.32		0.32			
v/c Ratio		0.89	0.23		0.46	0.61	0.56		0.90			
Control Delay		19.9	0.4		10.5	1.8	24.2		46.8			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		19.9	0.4		10.5	1.8	24.2		46.8			
LOS		B	A		B	A	C		D			
Approach Delay		17.5			6.9							
Approach LOS		B			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

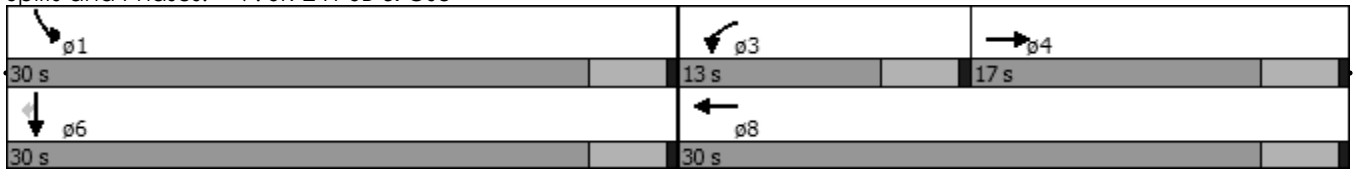


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰↰	↑↑	↱
Traffic Volume (vph)	0	610	1080	120	1440	0	0	0	0	320	860	190
Future Volume (vph)	0	610	1080	120	1440	0	0	0	0	320	860	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			380									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	642	1137	126	1516	0	0	0	0	337	905	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		17.0		13.0	30.0					30.0	30.0	30.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		14.5	58.5	8.1	24.5					26.0	26.0	26.0
Actuated g/C Ratio		0.25	1.00	0.14	0.42					0.44	0.44	0.44
v/c Ratio		0.51	0.72	0.51	0.71					0.22	0.57	0.27
Control Delay		21.7	2.8	31.5	16.3					10.9	14.3	7.2
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.7	2.8	31.5	16.3					10.9	14.3	7.2
LOS		C	A	C	B					B	B	A
Approach Delay		9.7			17.5						12.5	
Approach LOS		A			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

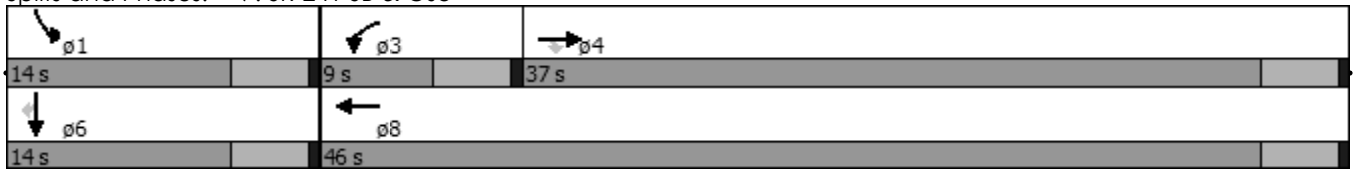


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	610	1080	120	1440	0	0	0	0	320	0	190
Future Volume (vph)	0	610	1080	120	1440	0	0	0	0	320	0	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Flt Permitted				0.950						0.950	0.960	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1585	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			753								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										45%		16%
Lane Group Flow (vph)	0	642	1137	126	1516	0	0	0	0	185	184	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		37.0	37.0	9.0	46.0					14.0	14.0	14.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		30.4	30.4	5.0	39.5					10.1	10.1	10.1
Actuated g/C Ratio		0.53	0.53	0.09	0.69					0.18	0.18	0.18
v/c Ratio		0.24	0.95	0.82	0.44					0.63	0.52	0.50
Control Delay		7.4	24.1	69.5	4.4					35.1	18.6	17.5
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.4	24.1	69.5	4.4					35.1	18.6	17.5
LOS		A	C	E	A					D	B	B
Approach Delay		18.1			9.4						24.0	
Approach LOS		B			A						C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 15.3 Intersection LOS: B
Intersection Capacity Utilization 94.3% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

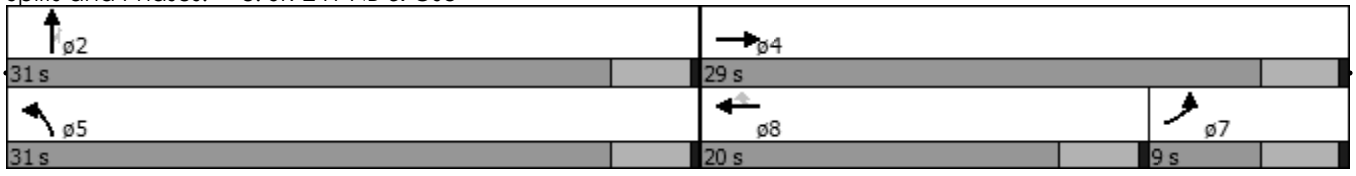


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	920	450	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	920	450	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	600	53	968	474	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.0	19.6			16.3	16.3	27.2	27.2	27.2			
Actuated g/C Ratio	0.09	0.36			0.30	0.30	0.50	0.50	0.50			
v/c Ratio	0.13	0.69			0.40	0.10	0.57	0.27	0.29			
Control Delay	25.8	18.0			17.0	2.4	12.2	9.4	7.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.8	18.0			17.0	2.4	12.2	9.4	7.1			
LOS	C	B			B	A	B	A	A			
Approach Delay		18.4			15.8			10.7				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

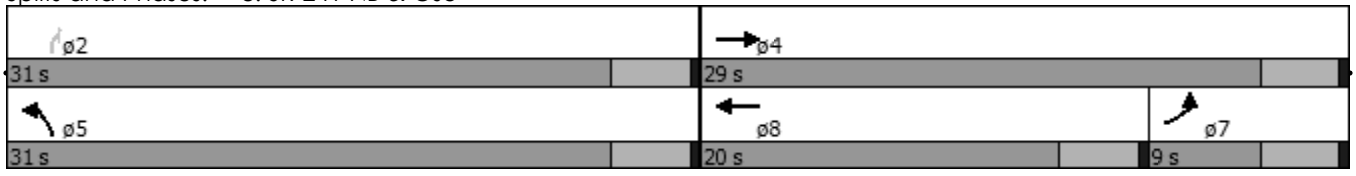


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	830	0	0	570	50	920	0	230	0	0	0
Future Volume (vph)	40	830	0	0	570	50	920	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5010	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	874	0	0	653	0	968	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.0	19.5			16.2		27.1		27.1			
Actuated g/C Ratio	0.09	0.36			0.30		0.50		0.50			
v/c Ratio	0.13	0.69			0.44		0.57		0.29			
Control Delay	25.7	18.1			16.8		12.1		7.0			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.7	18.1			16.8		12.1		7.0			
LOS	C	B			B		B		A			
Approach Delay		18.4			16.8							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 14.9		Intersection LOS: B	
Intersection Capacity Utilization 94.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

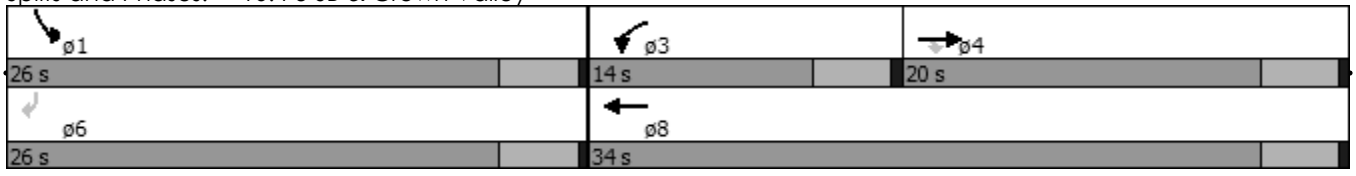


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1940	260	540	1260	0	0	0	0	1130	0	990
Future Volume (vph)	0	1940	260	540	1260	0	0	0	0	1130	0	990
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			274									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2042	274	568	1326	0	0	0	0	1189	0	1042
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		1.02	0.45	0.99	0.52					0.65		0.97
Control Delay		47.9	5.5	64.6	11.1					17.8		39.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		47.9	5.5	64.6	11.1					17.8		39.9
LOS		D	A	E	B					B		D
Approach Delay		42.9			27.1							
Approach LOS		D			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 33.1 Intersection LOS: C
Intersection Capacity Utilization 69.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

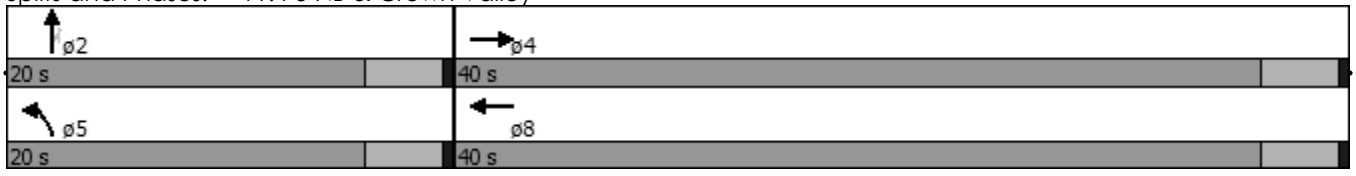


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2360	700	0	1590	1520	230	0	410	0	0	0
Future Volume (vph)	0	2360	700	0	1590	1520	230	0	410	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5962	1283	0	4570	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	5962	1260	0	4570	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39	567		359	800		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			23%			50%	10%		48%			
Lane Group Flow (vph)	0	2654	567	0	2474	800	218	231	225	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.74	0.45		0.86	0.59	0.49	0.57	0.54			
Control Delay		10.1	1.2		12.4	1.9	23.0	24.2	23.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.1	1.2		12.4	1.9	23.0	24.2	23.1			
LOS		B	A		B	A	C	C	C			
Approach Delay		8.5			9.8			23.4				
Approach LOS		A			A			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

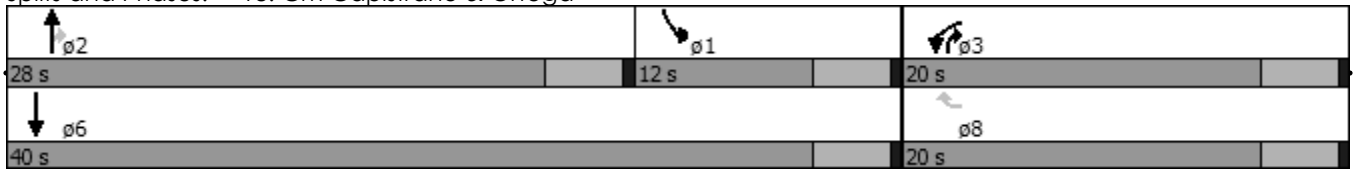


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	200	450	140	140	510
Future Volume (vph)	130	200	450	140	140	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211		147		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	211	474	147	147	537
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	28.0	20.0	12.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	26.7	36.6	7.7	36.1
Actuated g/C Ratio	0.18	0.18	0.50	0.68	0.14	0.67
v/c Ratio	0.42	0.48	0.51	0.13	0.58	0.43
Control Delay	23.3	7.3	14.0	0.8	34.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	7.3	14.0	0.8	34.1	6.2
LOS	C	A	B	A	C	A
Approach Delay	13.6		10.9			12.2
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 51.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

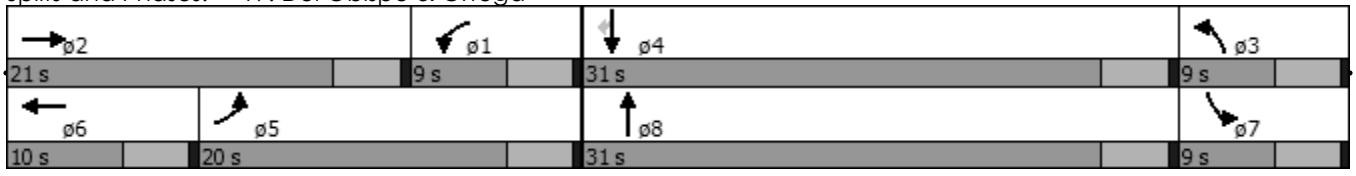


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	620	10	40	20	10	20	50	920	20	10	1120	470
Future Volume (vph)	620	10	40	20	10	20	50	920	20	10	1120	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1592	0	1770	1680	0	1770	5063	0	1770	3539	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			21			5				467
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	653	53	0	21	32	0	53	989	0	11	1179	495
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		9.0	31.0		9.0	31.0	31.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.2	15.7		6.5	5.8		5.0	34.7		5.0	27.2	27.2
Actuated g/C Ratio	0.24	0.25		0.10	0.09		0.08	0.55		0.08	0.43	0.43
v/c Ratio	0.79	0.12		0.12	0.18		0.38	0.36		0.08	0.77	0.54
Control Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	21.2	4.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	3.0	0.1
Total Delay	32.0	11.2		27.6	20.0		37.8	10.0		31.1	24.3	4.8
LOS	C	B		C	B		D	B		C	C	A
Approach Delay		30.5			23.0			11.4			18.6	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 63.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 69.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 19: Del Obispo & Ortega

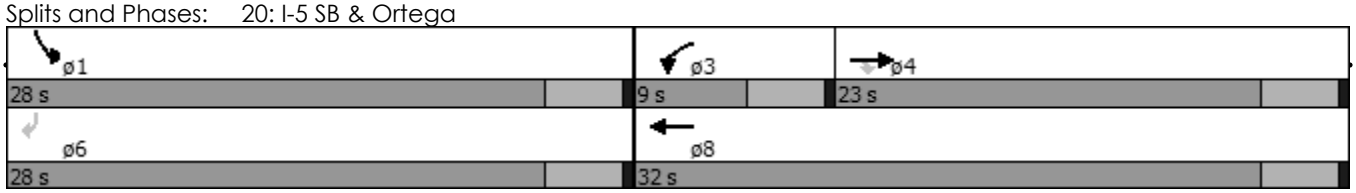


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1410	150	70	950	0	0	0	0	1040	0	660
Future Volume (vph)	0	1410	150	70	950	0	0	0	0	1040	0	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1529	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158									124
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1484	158	74	1000	0	0	0	0	1095	0	695
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	9.0	32.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		18.9	18.9	5.0	24.0					24.2		24.2
Actuated g/C Ratio		0.34	0.34	0.09	0.43					0.43		0.43
v/c Ratio		0.79	0.25	0.24	0.63					0.73		0.49
Control Delay		21.6	4.4	27.4	14.4					17.8		11.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		21.6	4.4	27.4	14.4					17.8		11.4
LOS		C	A	C	B					B		B
Approach Delay		19.9			15.3							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 75.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

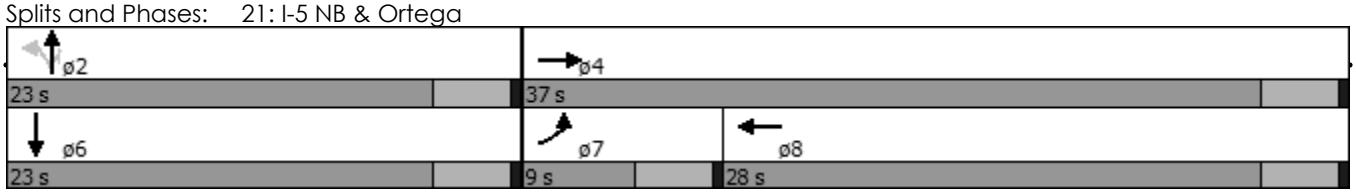


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1630	800	0	1790	10	230	10	270	0	0	10
Future Volume (vph)	10	1630	800	0	1790	10	230	10	270	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5405	1583	0	5529	0	0	1760	1583	0	1611	0
Flt Permitted	0.950							0.748				
Satd. Flow (perm)	1770	5405	1555	0	5529	0	0	1372	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91	573		2			10	91		189	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			32%						10%			
Lane Group Flow (vph)	11	1985	573	0	1895	0	0	281	256	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	37.0			28.0		23.0	23.0	23.0		23.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	31.4	58.5		29.7			19.1	19.1		19.1	
Actuated g/C Ratio	0.09	0.54	1.00		0.51			0.33	0.33		0.33	
v/c Ratio	0.07	0.67	0.37		0.68			0.62	0.44		0.02	
Control Delay	26.6	10.6	0.7		13.3			23.9	13.3		0.0	
Queue Delay	0.0	47.9	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.6	58.5	0.7		13.3			23.9	13.3		0.0	
LOS	C	E	A		B			C	B		A	
Approach Delay		45.5			13.3			18.8			0.0	
Approach LOS		D			B			B			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 30.3		Intersection LOS: C	
Intersection Capacity Utilization 69.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 21: I-5 NB & Ortega

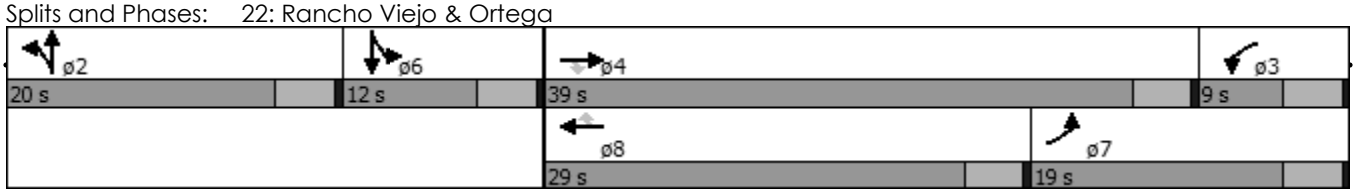


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	1420	390	60	1190	140	430	90	50	160	120	140
Future Volume (vph)	160	1420	390	60	1190	140	430	90	50	160	120	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1736	0	1770	3432	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1770	3654	1518	1770	5481	1583	3539	1736	0	1770	3432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			360			177		31			147	
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	168	1495	411	63	1253	147	453	148	0	151	290	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						
Total Split (s)	19.0	39.0	39.0	9.0	29.0	29.0	20.0	20.0		12.0	12.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	14.1	34.9	34.9	5.0	23.8	23.8	16.0	16.0		8.0	8.0	
Actuated g/C Ratio	0.18	0.45	0.45	0.06	0.31	0.31	0.21	0.21		0.10	0.10	
v/c Ratio	0.53	0.91	0.47	0.56	0.75	0.24	0.62	0.39		0.83	0.60	
Control Delay	35.9	31.2	4.7	56.7	27.7	3.3	33.1	25.3		72.0	22.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	35.9	31.2	4.7	56.7	27.7	3.3	33.1	25.3		72.0	22.7	
LOS	D	C	A	E	C	A	C	C		E	C	
Approach Delay		26.4			26.5			31.2			39.6	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 78
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 28.3 Intersection LOS: C
Intersection Capacity Utilization 78.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

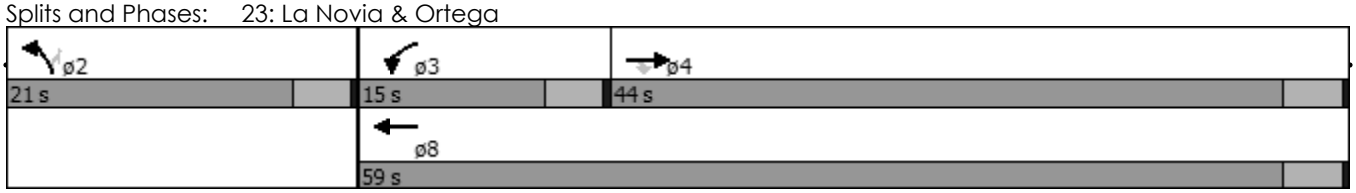


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1510	230	180	1200	230	130
Future Volume (vph)	1510	230	180	1200	230	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	1770	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1474	1770	3471	3433	1518
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		151				137
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1589	242	189	1263	242	137
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	44.0	44.0	15.0	59.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	39.5	39.5	10.7	54.2	17.0	17.0
Actuated g/C Ratio	0.50	0.50	0.14	0.68	0.21	0.21
v/c Ratio	0.92	0.30	0.79	0.53	0.33	0.32
Control Delay	28.6	5.7	58.8	7.2	28.0	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	5.7	58.8	7.2	28.0	7.4
LOS	C	A	E	A	C	A
Approach Delay	25.6			13.9	20.6	
Approach LOS	C			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 20.4 Intersection LOS: C
Intersection Capacity Utilization 75.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

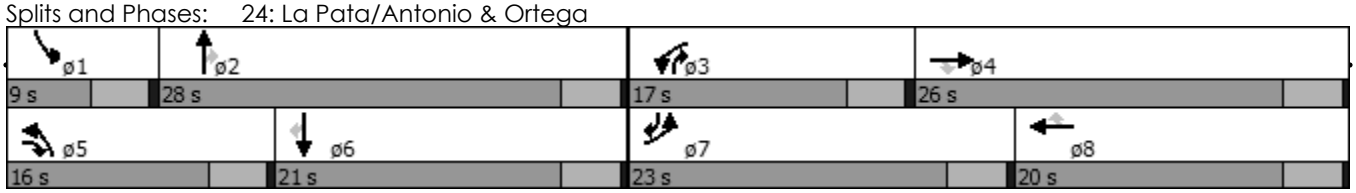


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	700	570	270	140	170	10	430	860	230	10	970	660
Future Volume (vph)	700	570	270	140	170	10	430	860	230	10	970	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1518	1770	3654	1518	3539	5588	1518	1770	5588	2948
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			232			123			357
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	737	600	284	147	179	11	453	905	242	11	1021	695
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	23.0	26.0	16.0	17.0	20.0	20.0	16.0	28.0	17.0	9.0	21.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.5	18.7	30.6	10.7	10.9	10.9	11.9	31.3	42.0	5.0	17.1	35.6
Actuated g/C Ratio	0.25	0.25	0.41	0.14	0.15	0.15	0.16	0.42	0.56	0.07	0.23	0.48
v/c Ratio	0.84	0.65	0.41	0.58	0.33	0.03	0.80	0.39	0.26	0.09	0.80	0.42
Control Delay	37.5	29.0	10.1	39.9	30.0	0.1	43.6	16.9	4.8	36.6	33.6	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	29.0	10.1	39.9	30.0	0.1	43.6	16.9	4.8	36.6	33.6	6.0
LOS	D	C	B	D	C	A	D	B	A	D	C	A
Approach Delay		29.5			33.3			22.6			22.5	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 74.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 25.4		Intersection LOS: C	
Intersection Capacity Utilization 73.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 24: La Pata/Antonio & Ortega

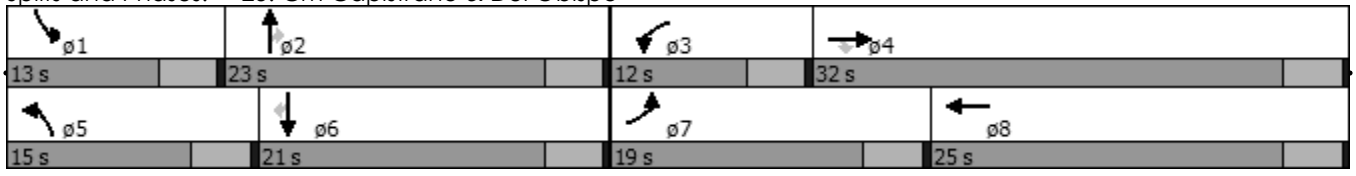


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Future Volume (vph)	250	630	250	160	760	30	360	210	150	80	150	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3509	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3509	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			263		5				177			303
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	663	263	168	832	0	379	221	158	84	158	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	19.0	32.0	32.0	12.0	25.0		15.0	23.0	23.0	13.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	14.2	27.2	27.2	7.7	20.7		10.9	21.9	21.9	8.0	17.0	17.0
Actuated g/C Ratio	0.18	0.35	0.35	0.10	0.26		0.14	0.28	0.28	0.10	0.22	0.22
v/c Ratio	0.82	0.54	0.38	0.50	0.90		0.80	0.43	0.29	0.46	0.39	0.75
Control Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	22.8	4.3	39.6	42.8		47.7	28.5	4.9	42.3	30.4	18.3
LOS	D	C	A	D	D		D	C	A	D	C	B
Approach Delay		25.6			42.2			33.2			24.2	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 72.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

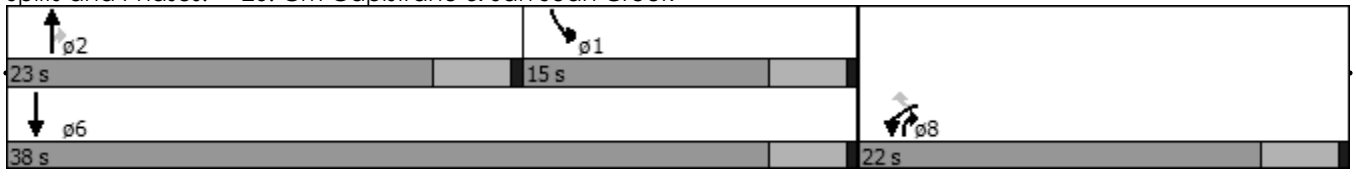


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	480	400	430	350	320	560
Future Volume (vph)	480	400	430	350	320	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3329	1441	3539	1583	3433	3539
Flt Permitted	0.962				0.950	
Satd. Flow (perm)	3329	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	57	290		70		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		31%				
Lane Group Flow (vph)	636	290	453	368	337	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	23.0	22.0	15.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.4	15.4	19.1	34.4	11.0	34.1
Actuated g/C Ratio	0.27	0.27	0.33	0.60	0.19	0.59
v/c Ratio	0.68	0.50	0.39	0.38	0.51	0.28
Control Delay	21.1	5.8	16.5	4.6	24.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	5.8	16.5	4.6	24.6	6.6
LOS	C	A	B	A	C	A
Approach Delay	16.3		11.2			13.1
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 13.6 Intersection LOS: B
Intersection Capacity Utilization 50.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

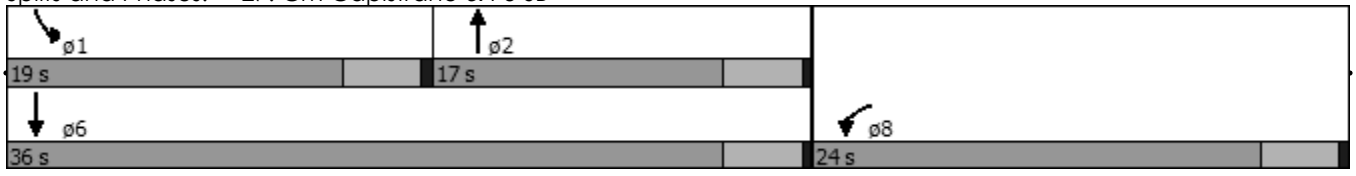


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	750	380	440	60	490	550
Future Volume (vph)	750	380	440	60	490	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		400		63		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	789	400	463	63	516	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		17.0		19.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	57.6	15.0	57.6	13.1	32.1
Actuated g/C Ratio	0.30	1.00	0.26	1.00	0.23	0.56
v/c Ratio	0.76	0.25	0.50	0.04	0.66	0.29
Control Delay	23.4	0.4	21.6	0.1	24.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	0.4	21.6	0.1	24.9	7.7
LOS	C	A	C	A	C	A
Approach Delay	15.6		19.1			15.8
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 57.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

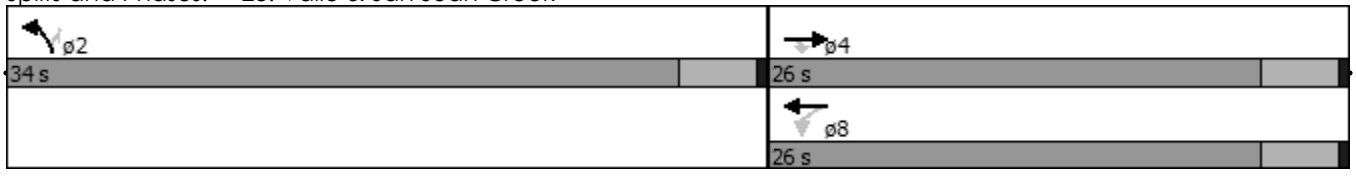


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	350	320	70	510	460	220
Future Volume (vph)	350	320	70	510	460	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.778	0.950	
Satd. Flow (perm)	1863	1493	0	2754	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		337				232
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	337	0	611	484	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	26.0	26.0	26.0	26.0	34.0	34.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.7	16.7		16.7	30.2	30.2
Actuated g/C Ratio	0.30	0.30		0.30	0.55	0.55
v/c Ratio	0.65	0.49		0.73	0.50	0.24
Control Delay	22.2	4.7		22.5	10.9	2.1
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	22.2	4.7		22.5	10.9	2.1
LOS	C	A		C	B	A
Approach Delay	13.8			22.5	8.0	
Approach LOS	B			C	A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 28: Valle & San Juan Creek

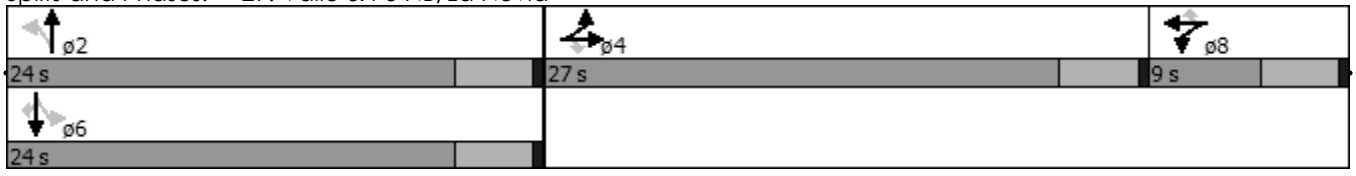


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Future Volume (vph)	380	50	80	30	10	90	160	160	30	80	160	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1785	1583	0	1796	1583	1770	1802	0	0	1833	1583
Flt Permitted		0.958			0.964		0.560				0.844	
Satd. Flow (perm)	0	1785	1583	0	1796	1583	1043	1802	0	0	1572	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			95		17				200
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	453	84	0	43	95	168	200	0	0	252	200
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	27.0	27.0	27.0	9.0	9.0	9.0	24.0	24.0		24.0	24.0	24.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.8	17.8		5.1	5.1	20.6	20.6			20.6	20.6
Actuated g/C Ratio		0.33	0.33		0.10	0.10	0.39	0.39			0.39	0.39
v/c Ratio		0.76	0.14		0.25	0.40	0.42	0.28			0.42	0.27
Control Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		25.4	3.7		29.2	12.6	19.1	14.2			17.2	3.9
LOS		C	A		C	B	B	B			B	A
Approach Delay		22.0			17.8			16.4			11.3	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 66.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia

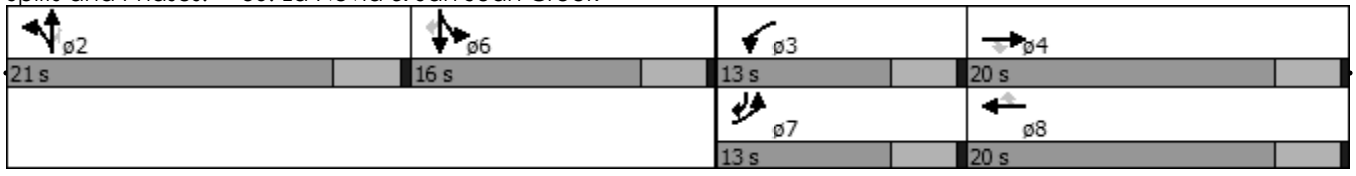


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Future Volume (vph)	150	100	10	100	100	250	90	170	10	200	170	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1484	1770	1863	1484	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			140			263			140			263
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	105	11	105	105	263	95	179	11	211	179	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	13.0	20.0	20.0	13.0	20.0	20.0	21.0	21.0	21.0	16.0	16.0	13.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.6	11.9	11.9	8.0	9.2	9.2	17.1	17.1	17.1	12.0	12.0	24.7
Actuated g/C Ratio	0.14	0.19	0.19	0.13	0.15	0.15	0.27	0.27	0.27	0.19	0.19	0.39
v/c Ratio	0.65	0.30	0.03	0.46	0.39	0.60	0.20	0.36	0.02	0.62	0.50	0.34
Control Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	26.3	0.1	33.4	28.4	9.9	20.3	22.0	0.1	34.4	29.4	3.6
LOS	D	C	A	C	C	A	C	C	A	C	C	A
Approach Delay		34.0			19.2			20.6			20.6	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 63			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

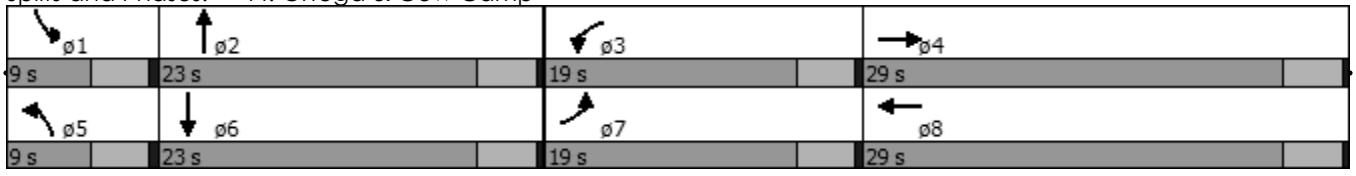


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	570	410	10	170	930	100	10	640	50	30	90	470
Future Volume (vph)	570	410	10	170	930	100	10	640	50	30	90	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3707	0	1770	3655	0	1770	3673	0	1770	3143	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			16			10			413	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	600	443	0	179	1084	0	11	727	0	32	590	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	19.0	29.0		19.0	29.0		9.0	23.0		9.0	23.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	14.9	27.6		12.0	24.8		5.0	19.1		5.0	20.7	
Actuated g/C Ratio	0.20	0.37		0.16	0.33		0.07	0.26		0.07	0.28	
v/c Ratio	0.85	0.32		0.63	0.88		0.09	0.76		0.27	0.50	
Control Delay	42.6	18.7		39.4	34.0		36.6	32.4		40.7	8.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	42.6	18.7		39.4	34.0		36.6	32.4		40.7	8.6	
LOS	D	B		D	C		D	C		D	A	
Approach Delay		32.4			34.8			32.5			10.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 80.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp



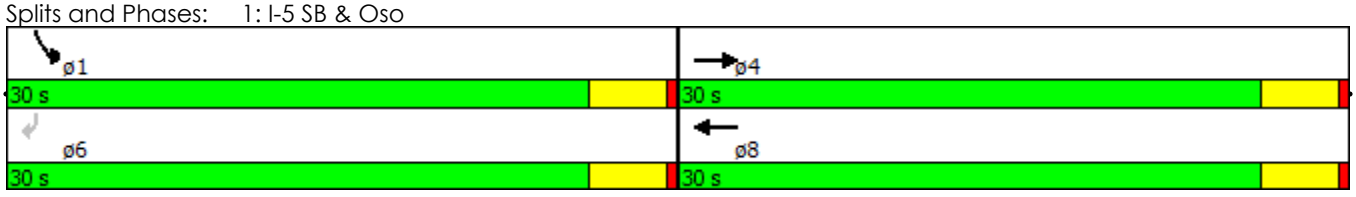
HCM Signalized Intersection Data Set 6
2035 Cumulative Without SR-241 Extension – No Project

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Future Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			758						18
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1147	421	0	1484	758	0	0	0	705	0	705
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		30.0			30.0					30.0		30.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		24.1	58.2		24.1	58.2				26.1		26.1
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.45		0.45
v/c Ratio		0.54	0.27		0.70	0.48				0.46		0.56
Control Delay		13.9	0.4		16.2	1.0				12.8		14.1
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		13.9	0.4		16.2	1.0				12.8		14.1
LOS		B	A		B	A				B		B
Approach Delay		10.3			11.1							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

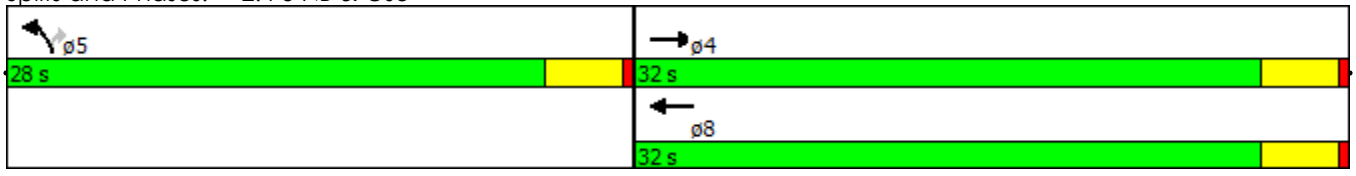


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1270	500	0	1960	1380	320	0	470	0	0	0
Future Volume (vph)	0	1270	500	0	1960	1380	320	0	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			526			1091			20			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1337	526	0	2063	1453	337	0	495	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		32.0			32.0		28.0		28.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		27.8	56.6		27.8	56.6	20.7		20.7			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.37		0.37			
v/c Ratio		0.53	0.34		0.83	0.92	0.27		0.84			
Control Delay		11.5	0.6		17.0	12.3	13.0		30.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		11.5	0.6		17.0	12.3	13.0		30.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.4			15.1							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 14.2		Intersection LOS: B	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	880	920	280	2000	0	0	0	0	30	580	70
Future Volume (vph)	0	880	920	280	2000	0	0	0	0	30	580	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			440									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	926	968	295	2105	0	0	0	0	32	611	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		21.0	40.0					20.0	20.0	20.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.0	58.1	14.0	34.0					9.7	16.1	16.1
Actuated g/C Ratio		0.28	1.00	0.24	0.59					0.17	0.28	0.28
v/c Ratio		0.66	0.61	0.69	0.71					0.06	0.63	0.15
Control Delay		21.8	1.8	29.3	10.0					18.5	22.3	4.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.8	1.8	29.3	10.0					18.5	22.3	4.4
LOS		C	A	C	B					B	C	A
Approach Delay		11.6			12.4						20.3	
Approach LOS		B			B						C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 13.2		Intersection LOS: B	
Intersection Capacity Utilization 73.8%		ICU Level of Service D	
Analysis Period (min) 15			

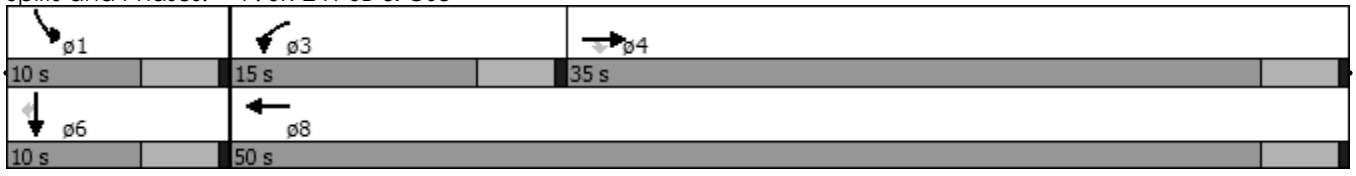
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	880	920	280	2000	0	0	0	0	30	0	70
Future Volume (vph)	0	880	920	280	2000	0	0	0	0	30	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Flt Permitted				0.950						0.950	0.996	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			447								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										10%		48%
Lane Group Flow (vph)	0	926	968	295	2105	0	0	0	0	29	39	38
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		35.0	35.0	15.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		29.9	29.9	11.0	44.9					5.8	2.4	6.0
Actuated g/C Ratio		0.51	0.51	0.19	0.76					0.10	0.04	0.10
v/c Ratio		0.36	0.95	0.89	0.54					0.17	0.27	0.16
Control Delay		9.2	27.9	56.5	3.4					27.5	5.6	2.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		9.2	27.9	56.5	3.4					27.5	5.6	2.4
LOS		A	C	E	A					C	A	A
Approach Delay		18.8			10.0						10.4	
Approach LOS		B			A						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 86.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

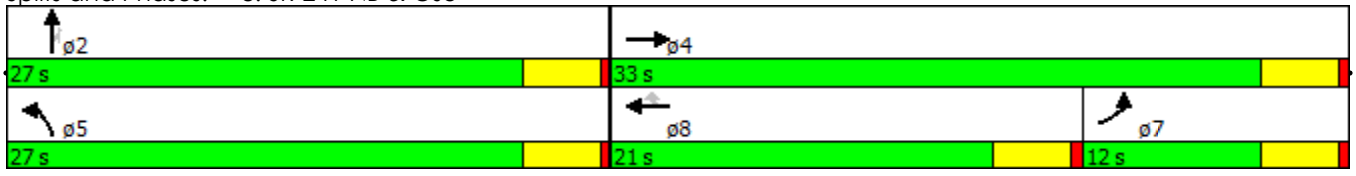


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	980	1030	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	980	1030	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1305	379	1032	1084	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	12.0	33.0			21.0	21.0	27.0	27.0	27.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	8.0	29.0			17.0	17.0	23.0	23.0	23.0			
Actuated g/C Ratio	0.13	0.48			0.28	0.28	0.38	0.38	0.38			
v/c Ratio	0.90	0.33			0.91	0.76	0.78	0.80	0.13			
Control Delay	51.9	10.2			31.9	27.2	21.7	22.2	3.6			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	51.9	10.2			31.9	27.2	21.7	22.2	3.6			
LOS	D	B			C	C	C	C	A			
Approach Delay		27.9			30.8			21.3				
Approach LOS		C			C			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 25.9 Intersection LOS: C
Intersection Capacity Utilization 73.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

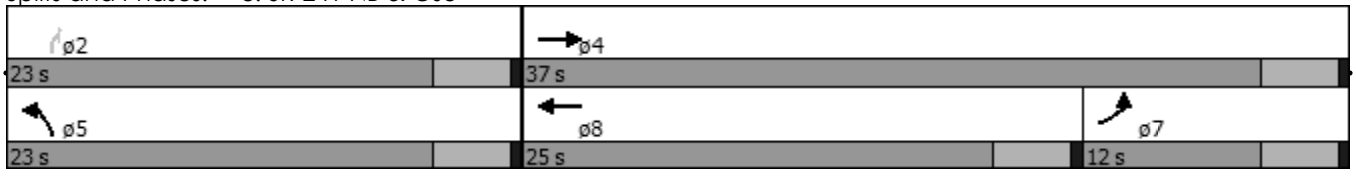


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	980	0	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	980	0	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					134				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1684	0	1032	0	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	12.0	37.0			25.0		23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	8.0	33.0			21.0		19.0		19.0			
Actuated g/C Ratio	0.13	0.55			0.35		0.32		0.32			
v/c Ratio	0.90	0.29			0.94		0.95		0.15			
Control Delay	51.9	7.7			29.9		39.9		4.5			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	51.9	7.7			29.9		39.9		4.5			
LOS	D	A			C		D		A			
Approach Delay		26.5			29.9							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 31.2		Intersection LOS: C	
Intersection Capacity Utilization 86.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

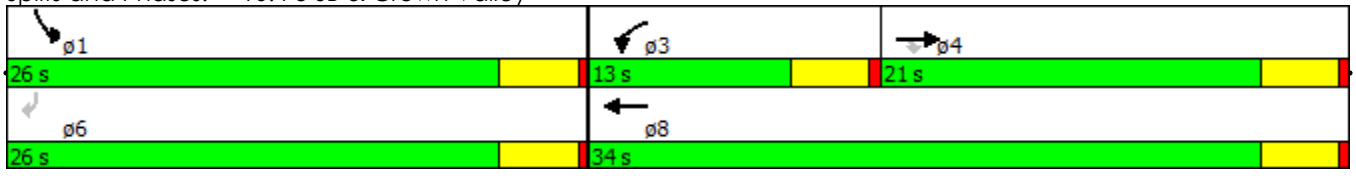


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1690	230	370	1280	0	0	0	0	1180	0	710
Future Volume (vph)	0	1690	230	370	1280	0	0	0	0	1180	0	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1779	242	389	1347	0	0	0	0	1242	0	747
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		21.0	21.0	13.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		17.0	17.0	9.0	30.0					22.0		22.0
Actuated g/C Ratio		0.28	0.28	0.15	0.50					0.37		0.37
v/c Ratio		0.83	0.40	0.76	0.53					0.68		0.69
Control Delay		24.5	5.0	35.9	11.2					18.3		18.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		24.5	5.0	35.9	11.2					18.3		18.1
LOS		C	A	D	B					B		B
Approach Delay		22.2			16.7							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

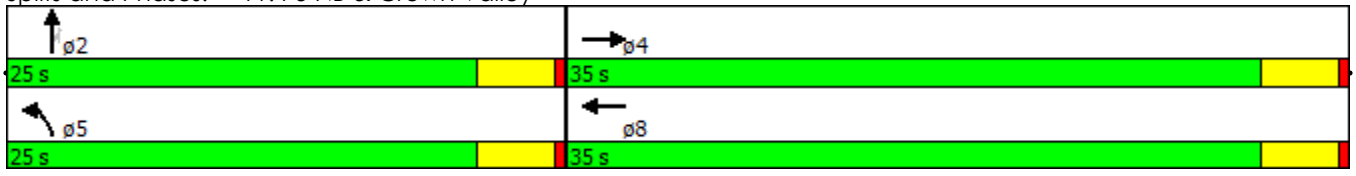


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2040	760	0	1390	1210	330	0	540	0	0	0
Future Volume (vph)	0	2040	760	0	1390	1210	330	0	540	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5910	1283	0	4585	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5910	1260	0	4585	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71	528		271	637		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			34%			50%	10%		47%			
Lane Group Flow (vph)	0	2419	528	0	2100	637	312	302	301	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.78	0.42		0.84	0.47	0.53	0.58	0.56			
Control Delay		13.7	1.0		14.8	1.2	19.6	20.2	19.6			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		13.7	1.0		14.8	1.2	19.6	20.2	19.6			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.4			11.6			19.8				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

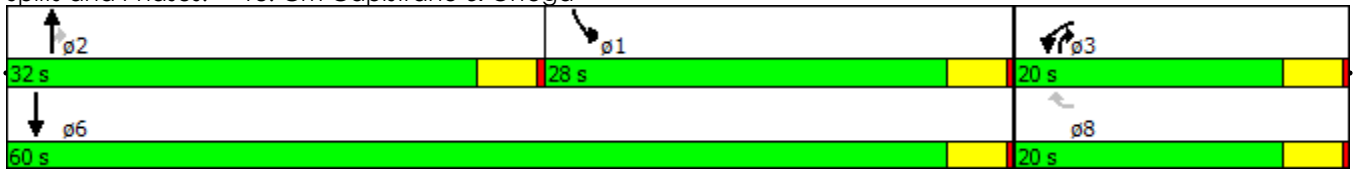


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	120	530	560	30	460	670
Future Volume (vph)	120	530	560	30	460	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1681	1474	1863	1518	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		558		23		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	558	589	32	484	705
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	32.0	20.0	28.0	60.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.4	11.2	28.1	39.5	24.1	56.1
Actuated g/C Ratio	0.15	0.15	0.37	0.52	0.32	0.74
v/c Ratio	0.47	0.80	0.85	0.04	0.86	0.51
Control Delay	35.0	13.0	36.8	3.8	42.5	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	13.0	36.8	3.8	42.5	6.2
LOS	C	B	D	A	D	A
Approach Delay	17.0		35.1			21.0
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1270	610
Future Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1270	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				426
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1200	0	11	1337	642
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	22.0		9.0	11.0		19.0	50.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.0	17.0		6.4	6.1		15.1	53.6		5.0	36.2	36.2
Actuated g/C Ratio	0.19	0.20		0.08	0.07		0.18	0.64		0.06	0.43	0.43
v/c Ratio	0.86	0.25		0.08	0.16		0.86	0.37		0.10	0.87	0.72
Control Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	30.3	12.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	47.5	1.7
Total Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	77.8	13.6
LOS	D	B		D	C		E	A		D	E	B
Approach Delay		43.3			32.1			18.2			56.9	
Approach LOS		D			C			B			E	

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 83.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 40.8		Intersection LOS: D	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

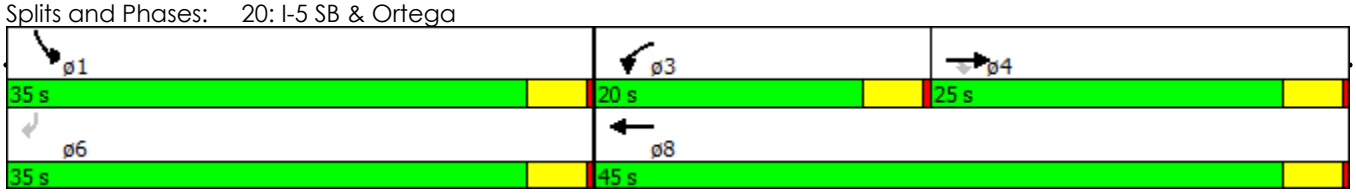
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1200	460	540	920	0	0	0	0	790	0	980
Future Volume (vph)	0	1200	460	540	920	0	0	0	0	790	0	980
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			435									177
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1263	484	568	968	0	0	0	0	832	0	1032
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.86	0.67	0.83	0.51					0.61		0.77
Control Delay		35.1	9.4	42.8	14.1					21.9		22.0
Queue Delay		1.6	0.0	0.0	0.6					0.0		0.0
Total Delay		36.6	9.4	42.8	14.7					21.9		22.0
LOS		D	A	D	B					C		C
Approach Delay		29.1			25.1							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 78.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

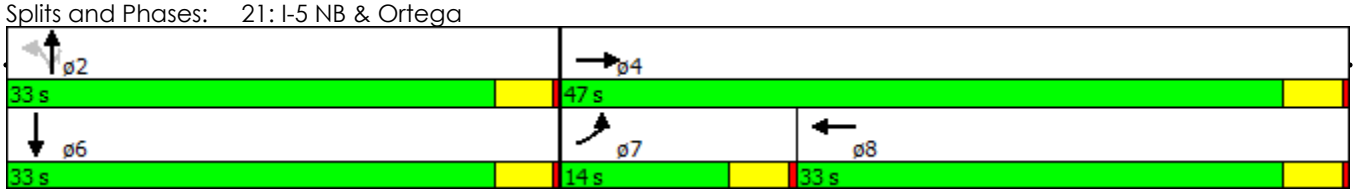


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1300	700	0	1860	10	260	10	850	0	0	10
Future Volume (vph)	10	1300	700	0	1860	10	260	10	850	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5373	1583	0	5529	0	0	1676	1583	0	1611	0
Flt Permitted	0.950							0.850				
Satd. Flow (perm)	1770	5373	1555	0	5529	0	0	1457	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92	472		1			32	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			36%						36%			
Lane Group Flow (vph)	11	1633	472	0	1969	0	0	607	573	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	33.9	71.1		31.9			29.1	29.1		29.1	
Actuated g/C Ratio	0.09	0.48	1.00		0.45			0.41	0.41		0.41	
v/c Ratio	0.07	0.63	0.30		0.79			0.99	0.83		0.01	
Control Delay	33.3	14.0	0.5		20.5			56.8	30.8		0.0	
Queue Delay	0.0	1.4	0.0		0.0			0.0	0.0		0.0	
Total Delay	33.3	15.4	0.5		20.5			56.8	30.8		0.0	
LOS	C	B	A		C			E	C		A	
Approach Delay		12.1			20.5			44.2			0.0	
Approach LOS		B			C			D			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 21: I-5 NB & Ortega

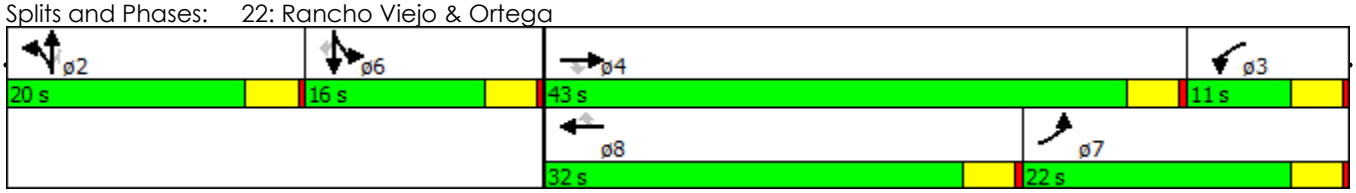


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	1180	440	80	1660	460	280	160	40	210	220	120
Future Volume (vph)	340	1180	440	80	1660	460	280	160	40	210	220	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1855	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.996	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1855	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			432			427			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	358	1242	463	84	1747	484	295	168	42	199	254	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	22.0	43.0	43.0	11.0	32.0	32.0	20.0	20.0	20.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	41.2	41.2	6.8	28.0	28.0	16.0	16.0	16.0	12.0	12.0	12.0
Actuated g/C Ratio	0.20	0.46	0.46	0.08	0.31	0.31	0.18	0.18	0.18	0.13	0.13	0.13
v/c Ratio	1.01	0.74	0.51	0.63	1.02	0.62	0.47	0.51	0.11	0.84	1.03	0.36
Control Delay	88.7	24.2	4.6	61.9	60.0	8.0	36.0	39.6	0.5	69.1	105.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.7	24.2	4.6	61.9	60.0	8.0	36.0	39.6	0.5	69.1	105.5	6.5
LOS	F	C	A	E	E	A	D	D	A	E	F	A
Approach Delay		31.0			49.2			34.2			71.4	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 43.3 Intersection LOS: D
Intersection Capacity Utilization 89.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

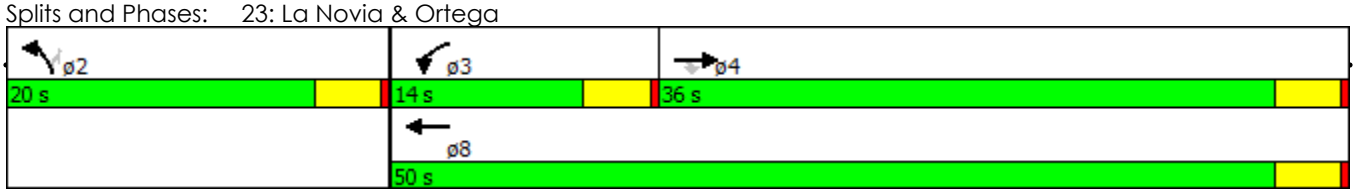


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1040	280	250	1910	340	210
Future Volume (vph)	1040	280	250	1910	340	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		281				221
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1095	295	263	2011	358	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	36.0	36.0	14.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	31.3	31.3	9.4	44.7	16.0	16.0
Actuated g/C Ratio	0.46	0.46	0.14	0.65	0.23	0.23
v/c Ratio	0.69	0.35	0.56	0.89	0.45	0.42
Control Delay	17.8	3.2	33.0	16.7	25.1	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	3.2	33.0	16.7	25.1	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.7			18.6	18.0	
Approach LOS	B			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 17.2 Intersection LOS: B
Intersection Capacity Utilization 72.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

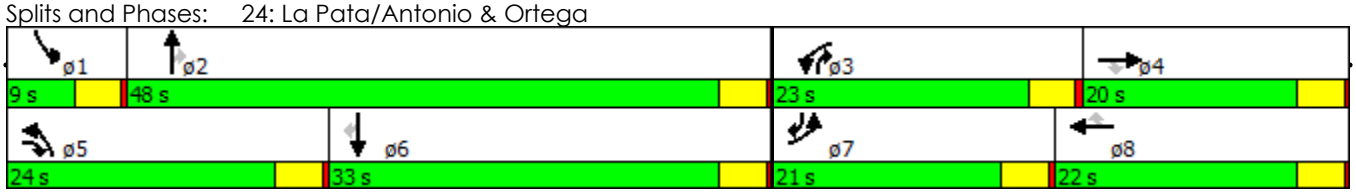


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	450	150	600	330	420	20	570	1380	220	10	1470	880
Future Volume (vph)	450	150	600	330	420	20	570	1380	220	10	1470	880
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			142			232			98
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	474	158	632	347	442	21	600	1453	232	11	1547	926
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	21.0	20.0	24.0	23.0	22.0	22.0	24.0	48.0	23.0	9.0	33.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.5	13.5	33.5	19.0	16.0	16.0	20.0	51.3	70.3	5.0	29.0	45.5
Actuated g/C Ratio	0.17	0.14	0.34	0.19	0.16	0.16	0.20	0.53	0.72	0.05	0.30	0.47
v/c Ratio	0.79	0.31	1.11	1.01	0.74	0.06	0.83	0.49	0.20	0.12	0.93	0.64
Control Delay	50.2	39.3	100.3	91.5	46.8	0.3	48.6	16.4	1.1	48.5	45.0	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	39.3	100.3	91.5	46.8	0.3	48.6	16.4	1.1	48.5	45.0	17.9
LOS	D	D	F	F	D	A	D	B	A	D	D	B
Approach Delay		73.9			64.8			23.3			34.9	
Approach LOS		E			E			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 97.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 41.8 Intersection LOS: D
Intersection Capacity Utilization 95.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

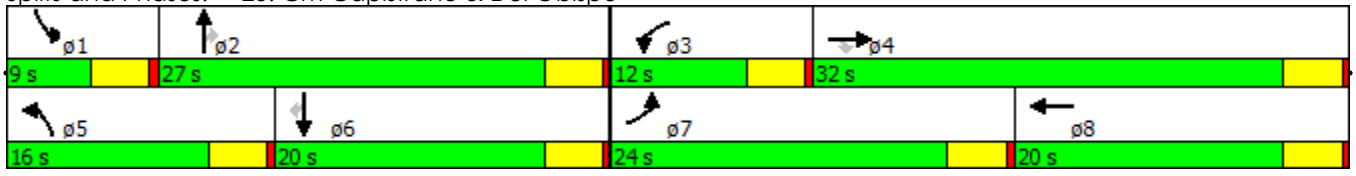


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Future Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340		5				177			409
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	421	505	432	158	526	0	484	505	147	32	326	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	32.0	32.0	12.0	20.0		16.0	27.0	27.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.9	27.3	27.3	7.7	15.1		12.0	28.4	28.4	5.0	16.0	16.0
Actuated g/C Ratio	0.25	0.35	0.35	0.10	0.19		0.15	0.36	0.36	0.06	0.20	0.20
v/c Ratio	0.94	0.41	0.58	0.47	0.78		0.93	0.75	0.22	0.29	0.86	0.75
Control Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
LOS	E	C	A	D	D		E	C	A	D	E	B
Approach Delay		29.8			39.3			41.2			31.4	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 35.0		Intersection LOS: C	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	730	540	590	580	580	550
Future Volume (vph)	730	540	590	580	580	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3355	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3355	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	39	333		18		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		26%				
Lane Group Flow (vph)	916	420	621	611	611	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	0.89	0.65	0.62	0.67	0.82	0.29
Control Delay	32.0	9.8	21.9	10.5	33.9	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	9.8	21.9	10.5	33.9	7.2
LOS	C	A	C	B	C	A
Approach Delay	25.0		16.3			20.9
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	630	300	880	50	560	720
Future Volume (vph)	630	300	880	50	560	720
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		316		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	663	316	926	53	589	758
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	18.0		25.0		17.0	42.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	13.7	59.7	21.3	59.7	12.7	38.0
Actuated g/C Ratio	0.23	1.00	0.36	1.00	0.21	0.64
v/c Ratio	0.84	0.20	0.73	0.03	0.81	0.34
Control Delay	33.9	0.3	21.1	0.0	32.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	0.3	21.1	0.0	32.9	5.6
LOS	C	A	C	A	C	A
Approach Delay	23.0		20.0			17.5
Approach LOS	C		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	880	390	350
Future Volume (vph)	520	630	240	880	390	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.655	0.950	
Satd. Flow (perm)	1863	1493	0	2318	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				295
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1179	411	368
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.3	32.3		32.3	17.1	17.1
Actuated g/C Ratio	0.56	0.56		0.56	0.30	0.30
v/c Ratio	0.52	0.59		0.91	0.78	0.54
Control Delay	9.8	3.0		23.1	32.6	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	9.8	3.0		23.1	32.6	8.0
LOS	A	A		C	C	A
Approach Delay	6.1			23.1	21.0	
Approach LOS	A			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 90.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Future Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				526
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	463	84	0	326	158	105	232	0	0	369	526
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	22.0	22.0	22.0	16.0	16.0	16.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.3	17.3		11.9	11.9	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.29	0.29		0.20	0.20	0.30	0.30			0.30	0.30
v/c Ratio		0.89	0.16		0.87	0.36	0.54	0.41			0.71	0.62
Control Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
LOS		D	A		D	A	C	B			C	A
Approach Delay		36.6			36.1			22.6			14.8	
Approach LOS		D			D			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 25.8 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

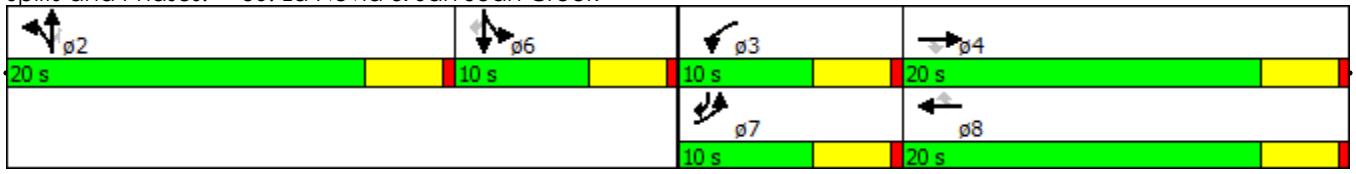
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Future Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			284			164			337
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	126	95	53	221	284	137	263	42	179	168	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.0	16.0	5.9	11.8	11.8	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.11	0.21	0.21	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.88	0.24	0.17	0.28	0.57	0.53	0.27	0.49	0.08	0.94	0.84	0.49
Control Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
LOS	E	B	A	C	C	A	B	C	A	F	E	A
Approach Delay		37.6			16.3			18.3			40.2	
Approach LOS		D			B			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 28.6		Intersection LOS: C	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

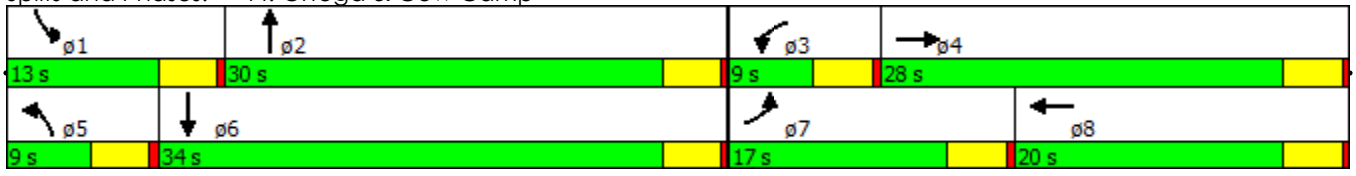


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	480	870	10	40	260	20	10	90	180	80	680	570
Future Volume (vph)	480	870	10	40	260	20	10	90	180	80	680	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3674	0	1770	3261	0	1770	3407	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3674	0	1770	3261	0	1770	3407	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			189			302	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	505	927	0	42	295	0	11	284	0	84	1316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	17.0	28.0		9.0	20.0		9.0	30.0		13.0	34.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	12.8	24.6		5.1	12.8		5.1	27.3		8.0	35.2	
Actuated g/C Ratio	0.17	0.33		0.07	0.17		0.07	0.37		0.11	0.47	
v/c Ratio	0.83	0.76		0.35	0.46		0.09	0.22		0.45	0.75	
Control Delay	45.1	28.6		44.3	29.6		37.3	7.5		41.0	16.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	45.1	28.6		44.3	29.6		37.3	7.5		41.0	16.8	
LOS	D	C		D	C		D	A		D	B	
Approach Delay		34.4			31.5			8.6			18.2	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 74.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.4		Intersection LOS: C	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp

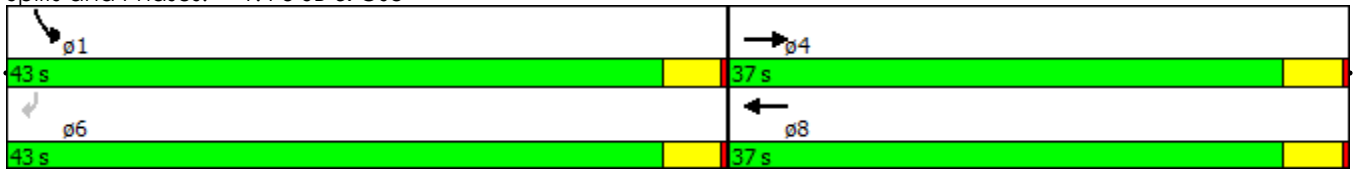


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1710	520	0	1460	660	0	0	0	1310	0	400
Future Volume (vph)	0	1710	520	0	1460	660	0	0	0	1310	0	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			411			695						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1800	547	0	1537	695	0	0	0	1379	0	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		37.0			37.0					43.0		43.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		32.9	79.9		32.9	79.9				39.0		39.0
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.49		0.49
v/c Ratio		0.86	0.36		0.73	0.44				0.82		0.31
Control Delay		26.8	0.6		22.4	0.9				22.8		12.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.8	0.6		22.4	0.9				22.8		12.7
LOS		C	A		C	A				C		B
Approach Delay		20.7			15.7							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 77.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

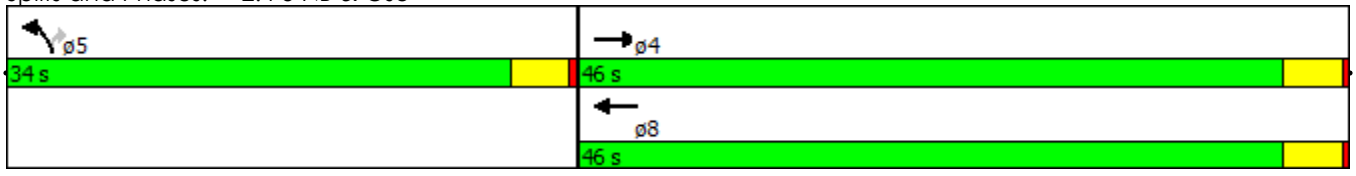


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2600	390	0	1510	710	590	0	610	0	0	0
Future Volume (vph)	0	2600	390	0	1510	710	590	0	610	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			181			747			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2737	411	0	1589	747	621	0	642	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		46.0			46.0		34.0		34.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		42.0	80.0		42.0	80.0	30.0		30.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.38		0.38			
v/c Ratio		1.03	0.27		0.60	0.47	0.48		1.07			
Control Delay		44.7	0.4		14.3	1.0	20.6		82.3			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.7	0.4		14.3	1.0	20.6		82.3			
LOS		D	A		B	A	C		F			
Approach Delay		38.9			10.0							
Approach LOS		D			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 94.7% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

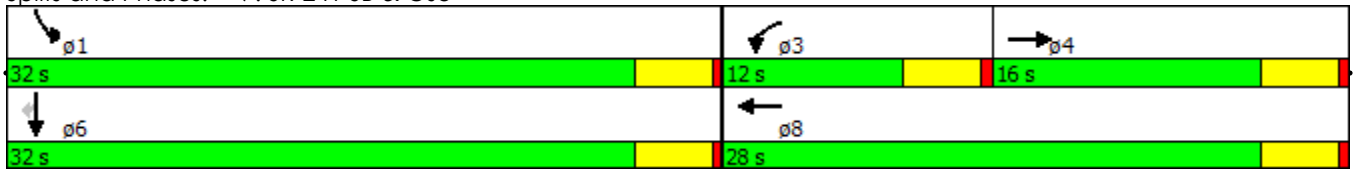


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	680	1120	100	1440	0	0	0	0	330	1070	320
Future Volume (vph)	0	680	1120	100	1440	0	0	0	0	330	1070	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			342									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	716	1179	105	1516	0	0	0	0	347	1126	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		16.0		12.0	28.0					32.0	32.0	32.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		13.9	59.3	7.4	23.3					28.0	28.0	28.0
Actuated g/C Ratio		0.23	1.00	0.12	0.39					0.47	0.47	0.47
v/c Ratio		0.60	0.74	0.48	0.76					0.21	0.67	0.42
Control Delay		23.7	3.2	31.9	18.6					9.8	14.8	9.5
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		23.7	3.2	31.9	18.6					9.8	14.8	9.5
LOS		C	A	C	B					A	B	A
Approach Delay		11.0			19.4						12.9	
Approach LOS		B			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 64.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

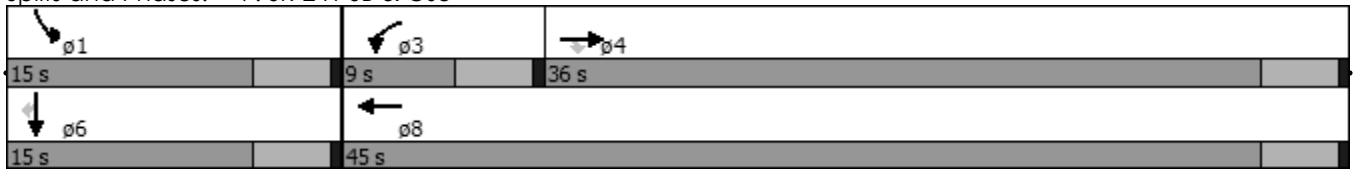


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	680	1120	100	1440	0	0	0	0	330	0	320
Future Volume (vph)	0	680	1120	100	1440	0	0	0	0	330	0	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Flt Permitted				0.950						0.950	0.977	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			784								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										31%		36%
Lane Group Flow (vph)	0	716	1179	105	1516	0	0	0	0	239	229	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		36.0	36.0	9.0	45.0					15.0	15.0	15.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		31.6	31.6	5.0	38.6					11.1	11.1	11.1
Actuated g/C Ratio		0.55	0.55	0.09	0.67					0.19	0.19	0.19
v/c Ratio		0.26	0.96	0.68	0.45					0.74	0.63	0.60
Control Delay		7.5	26.2	52.6	4.9					40.1	23.2	21.6
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.5	26.2	52.6	4.9					40.1	23.2	21.6
LOS		A	C	D	A					D	C	C
Approach Delay		19.2			8.0						28.6	
Approach LOS		B			A						C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 97.3% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

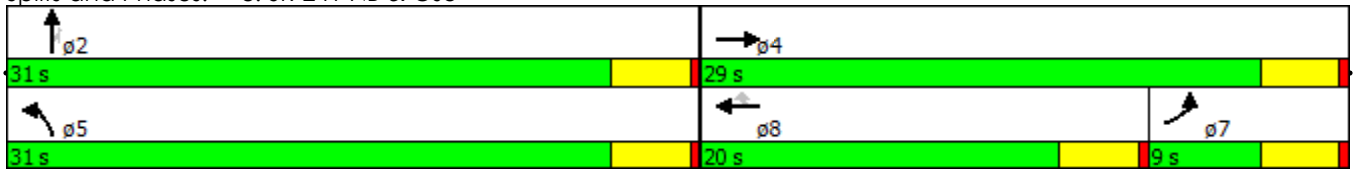


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	890	600	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	890	600	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	600	63	937	632	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.1	20.6			17.1	17.1	27.1	27.1	27.1			
Actuated g/C Ratio	0.09	0.37			0.31	0.31	0.49	0.49	0.49			
v/c Ratio	0.13	0.72			0.38	0.12	0.56	0.37	0.30			
Control Delay	25.9	18.5			16.8	3.2	12.5	10.4	7.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.9	18.5			16.8	3.2	12.5	10.4	7.3			
LOS	C	B			B	A	B	B	A			
Approach Delay		18.8			15.5			11.1				
Approach LOS		B			B			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 64.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

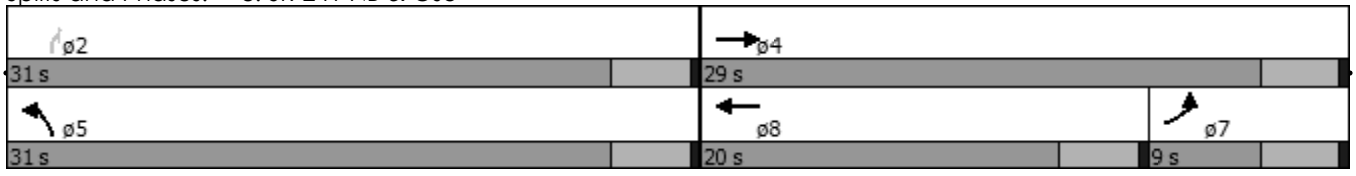


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	890	0	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	890	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					29				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	663	0	937	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.2	20.6			17.0		27.1		27.1			
Actuated g/C Ratio	0.09	0.37			0.31		0.49		0.49			
v/c Ratio	0.13	0.72			0.43		0.56		0.30			
Control Delay	25.8	18.5			16.5		12.5		7.3			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.8	18.5			16.5		12.5		7.3			
LOS	C	B			B		B		A			
Approach Delay		18.8			16.5							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 97.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

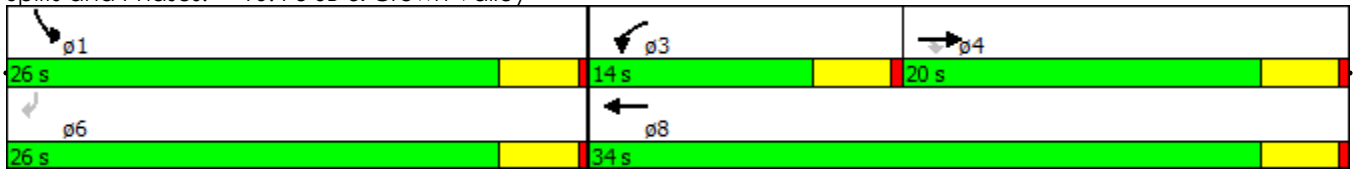


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1810	320	490	1390	0	0	0	0	1380	0	1060
Future Volume (vph)	0	1810	320	490	1390	0	0	0	0	1380	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1905	337	516	1463	0	0	0	0	1453	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		0.95	0.52	0.90	0.58					0.79		1.03
Control Delay		34.0	5.7	47.2	11.7					20.9		57.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.0	5.7	47.2	11.7					20.9		57.1
LOS		C	A	D	B					C		E
Approach Delay		29.7			20.9							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 29.8		Intersection LOS: C	
Intersection Capacity Utilization 71.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2580	510	0	1670	1480	240	0	440	0	0	0
Future Volume (vph)	0	2580	510	0	1670	1480	240	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4585	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4585	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10	398		333	779		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2770	483	0	2537	779	228	247	241	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.77	0.38		0.88	0.57	0.51	0.61	0.58			
Control Delay		10.7	0.9		13.7	1.8	23.4	25.5	24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.7	0.9		13.7	1.8	23.4	25.5	24.2			
LOS		B	A		B	A	C	C	C			
Approach Delay		9.2			10.9			24.4				
Approach LOS		A			B			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

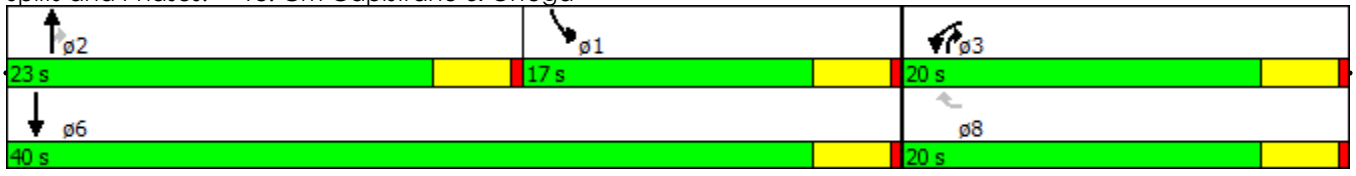
Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	540	100	380	610
Future Volume (vph)	160	490	540	100	380	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		493		73		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	568	105	400	642
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	23.0	20.0	17.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	19.1	29.6	13.0	36.1
Actuated g/C Ratio	0.19	0.19	0.35	0.54	0.24	0.66
v/c Ratio	0.49	0.76	0.87	0.12	0.95	0.52
Control Delay	24.5	10.8	35.8	2.2	58.1	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	10.8	35.8	2.2	58.1	7.4
LOS	C	B	D	A	E	A
Approach Delay	14.2		30.5			26.9
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	660	10	150	10	10	10	160	1270	10	10	1000	820
Future Volume (vph)	660	10	150	10	10	10	160	1270	10	10	1000	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			1				595
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	695	169	0	11	22	0	168	1348	0	11	1053	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		19.0	68.0		9.0	58.0	58.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.8	27.3		8.0	6.2		15.1	71.6		5.0	54.3	54.3
Actuated g/C Ratio	0.23	0.24		0.07	0.05		0.13	0.63		0.04	0.48	0.48
v/c Ratio	0.89	0.35		0.09	0.21		0.71	0.42		0.14	0.62	0.84
Control Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	25.0	17.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	26.1	9.0
Total Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	51.2	26.2
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		48.1			43.5			18.3			40.0	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 113.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.1 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15

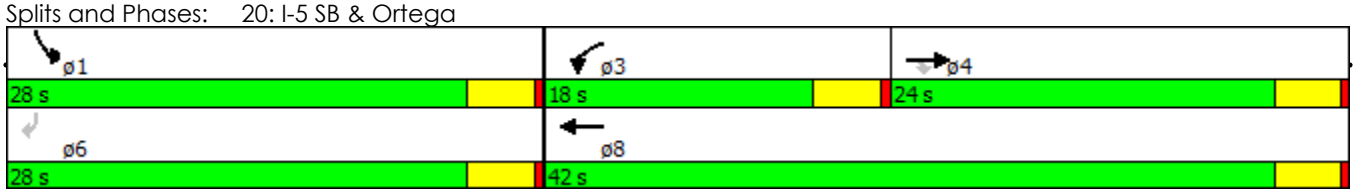
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1440	480	610	800	0	0	0	0	990	0	1020
Future Volume (vph)	0	1440	480	610	800	0	0	0	0	990	0	1020
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			446									283
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1516	505	642	842	0	0	0	0	1042	0	1074
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		24.0	24.0	18.0	42.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		20.0	20.0	14.0	38.0					24.0		24.0
Actuated g/C Ratio		0.29	0.29	0.20	0.54					0.34		0.34
v/c Ratio		0.95	0.67	0.92	0.42					0.87		0.85
Control Delay		39.3	8.8	48.1	10.2					31.2		23.3
Queue Delay		2.5	0.0	0.0	0.0					0.0		0.0
Total Delay		41.8	8.8	48.1	10.2					31.2		23.3
LOS		D	A	D	B					C		C
Approach Delay		33.6			26.6							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 29.3		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 20: I-5 SB & Ortega

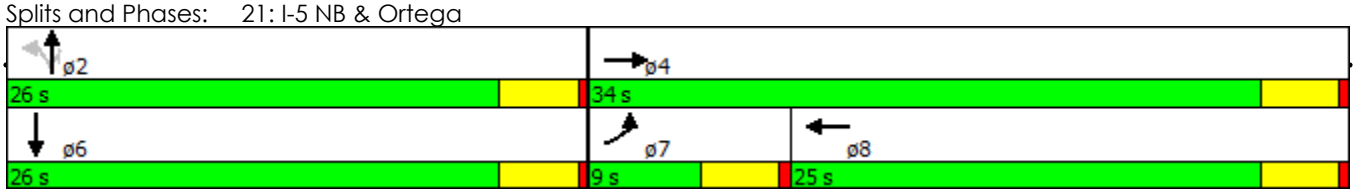


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1740	690	0	1780	10	210	10	670	0	0	10
Future Volume (vph)	10	1740	690	0	1780	10	210	10	670	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5463	1583	0	5529	0	0	1680	1583	0	1611	0
Flt Permitted	0.950							0.847				
Satd. Flow (perm)	1770	5463	1555	0	5529	0	0	1456	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36	574		2			6	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			21%						35%			
Lane Group Flow (vph)	11	1984	574	0	1885	0	0	479	458	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	29.4	59.4		27.6			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.49	1.00		0.46			0.37	0.37		0.37	
v/c Ratio	0.07	0.73	0.37		0.73			0.88	0.71		0.02	
Control Delay	26.6	13.6	0.7		16.8			39.2	20.5		0.0	
Queue Delay	0.0	48.1	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.6	61.6	0.7		16.8			39.2	20.5		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		47.9			16.8			30.1			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 33.8 Intersection LOS: C
Intersection Capacity Utilization 78.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

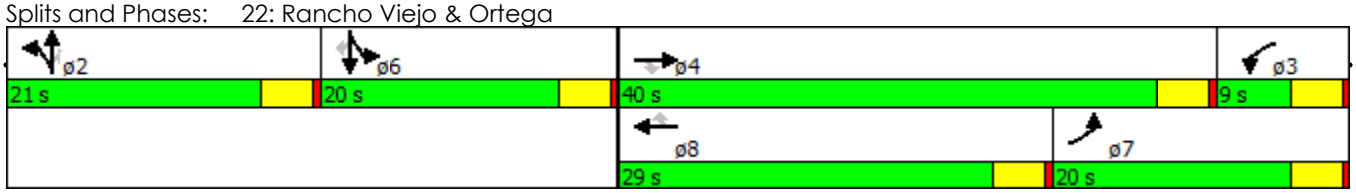


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	1270	380	70	1040	270	440	150	50	380	150	250
Future Volume (vph)	240	1270	380	70	1040	270	440	150	50	380	150	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			327			284			158			254
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	253	1337	400	74	1095	284	463	158	53	276	282	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	40.0	40.0	9.0	29.0	29.0	21.0	21.0	21.0	20.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.2	36.0	36.0	5.0	23.9	23.9	17.0	17.0	17.0	16.0	16.0	16.0
Actuated g/C Ratio	0.17	0.41	0.41	0.06	0.27	0.27	0.19	0.19	0.19	0.18	0.18	0.18
v/c Ratio	0.83	0.90	0.51	0.74	0.74	0.45	0.68	0.44	0.13	0.86	0.85	0.53
Control Delay	59.7	34.3	6.7	82.9	32.8	5.8	39.2	36.6	0.6	62.1	60.8	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	34.3	6.7	82.9	32.8	5.8	39.2	36.6	0.6	62.1	60.8	9.4
LOS	E	C	A	F	C	A	D	D	A	E	E	A
Approach Delay		32.0			30.1			35.5			44.8	
Approach LOS		C			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 34.0 Intersection LOS: C
Intersection Capacity Utilization 80.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

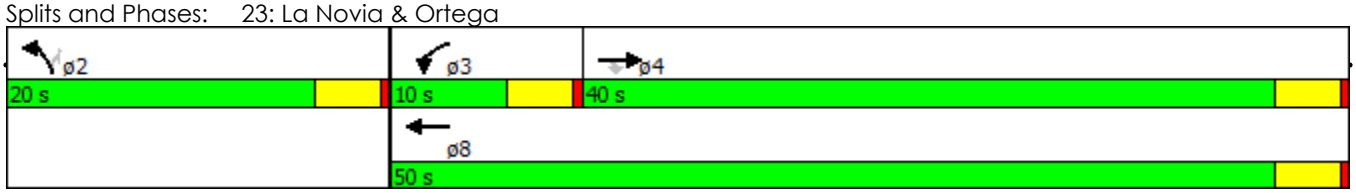


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1510	300	240	1160	260	200
Future Volume (vph)	1510	300	240	1160	260	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		232				168
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1589	316	253	1221	274	211
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	40.0	40.0	10.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	35.5	35.5	6.0	45.5	16.0	16.0
Actuated g/C Ratio	0.51	0.51	0.09	0.65	0.23	0.23
v/c Ratio	0.90	0.35	0.85	0.54	0.35	0.44
Control Delay	23.9	4.2	59.9	7.5	24.0	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	4.2	59.9	7.5	24.0	9.9
LOS	C	A	E	A	C	A
Approach Delay	20.6			16.5	17.9	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 18.7 Intersection LOS: B
Intersection Capacity Utilization 71.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

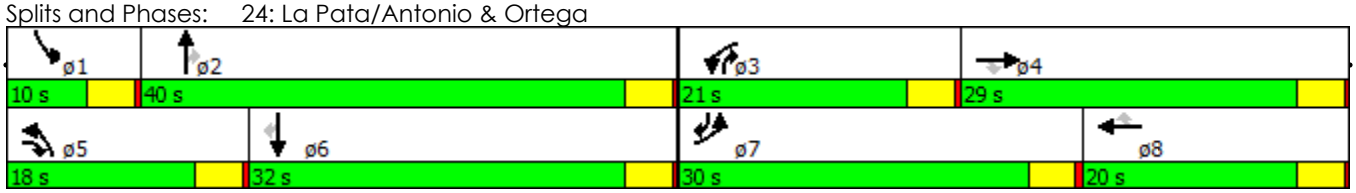


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	750	640	240	220	210	10	400	1100	350	40	1340	680
Future Volume (vph)	750	640	240	220	210	10	400	1100	350	40	1340	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			185			98			165
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	789	674	253	232	221	11	421	1158	368	42	1411	716
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	30.0	29.0	18.0	21.0	20.0	20.0	18.0	40.0	21.0	10.0	32.0	30.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	25.0	22.5	36.1	15.6	13.0	13.0	13.7	40.0	55.6	5.9	28.1	53.1
Actuated g/C Ratio	0.26	0.23	0.38	0.16	0.14	0.14	0.14	0.42	0.58	0.06	0.29	0.55
v/c Ratio	0.85	0.79	0.41	0.81	0.45	0.03	0.83	0.50	0.40	0.39	0.86	0.41
Control Delay	44.6	42.1	17.3	61.4	41.1	0.2	56.4	23.0	9.0	55.6	39.4	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	42.1	17.3	61.4	41.1	0.2	56.4	23.0	9.0	55.6	39.4	8.8
LOS	D	D	B	E	D	A	E	C	A	E	D	A
Approach Delay		39.6			50.3			27.6			29.6	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 95.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 33.2 Intersection LOS: C
Intersection Capacity Utilization 81.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

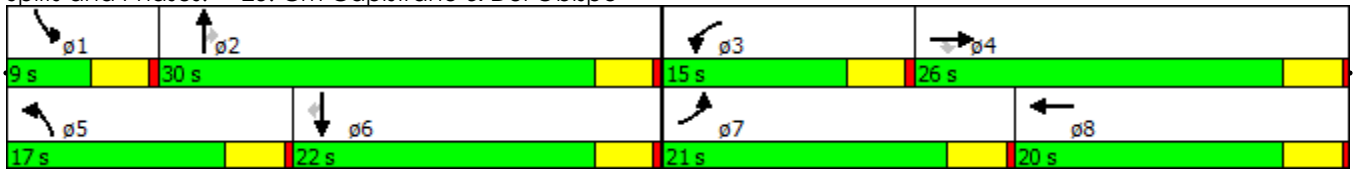


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Future Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3466	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3466	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			304		13				198			283
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	568	442	379	652	0	579	537	242	63	389	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	21.0	26.0	26.0	15.0	20.0		17.0	30.0	30.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	17.0	22.1	22.1	10.9	16.0		13.0	27.8	27.8	5.0	18.0	18.0
Actuated g/C Ratio	0.21	0.28	0.28	0.14	0.20		0.16	0.35	0.35	0.06	0.22	0.22
v/c Ratio	1.01	0.58	0.69	0.81	0.93		1.04	0.83	0.37	0.57	0.93	0.68
Control Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
LOS	F	C	B	D	D		F	D	A	E	E	B
Approach Delay		38.7			51.1			52.1			40.2	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 45.7		Intersection LOS: D	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	640	540	500	680	730
Future Volume (vph)	840	640	540	500	680	730
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	343		9		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1073	485	568	526	716	768
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	1.04	0.74	0.57	0.58	0.96	0.38
Control Delay	60.9	14.3	21.0	8.7	51.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	14.3	21.0	8.7	51.5	7.9
LOS	E	B	C	A	D	A
Approach Delay	46.4		15.1			28.9
Approach LOS	D		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 75.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	360	690	50	600	970
Future Volume (vph)	840	360	690	50	600	970
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		379		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	884	379	726	53	632	1021
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	22.0		20.0		18.0	38.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	59.5	16.4	59.5	13.6	34.0
Actuated g/C Ratio	0.29	1.00	0.28	1.00	0.23	0.57
v/c Ratio	0.88	0.24	0.74	0.03	0.81	0.50
Control Delay	31.9	0.4	25.8	0.0	31.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	0.4	25.8	0.0	31.6	8.9
LOS	C	A	C	A	C	A
Approach Delay	22.4		24.1			17.6
Approach LOS	C		C			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15

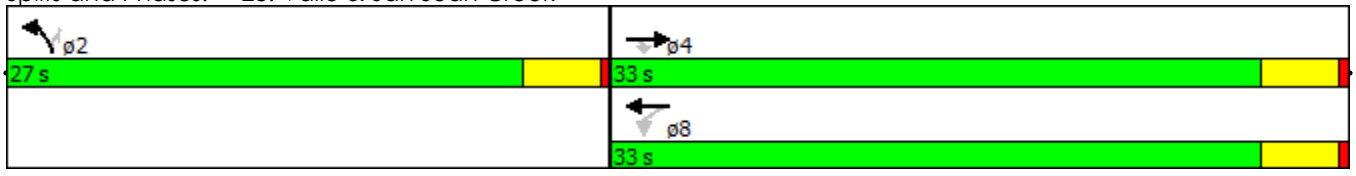
Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	600	580	110	920	570	240
Future Volume (vph)	600	580	110	920	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3522	1770	1583
Flt Permitted				0.685	0.950	
Satd. Flow (perm)	1863	1493	0	2424	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				176
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	632	611	0	1084	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	33.0	33.0	33.0	33.0	27.0	27.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.4	28.4		28.4	23.0	23.0
Actuated g/C Ratio	0.48	0.48		0.48	0.39	0.39
v/c Ratio	0.71	0.59		0.94	0.87	0.35
Control Delay	17.7	3.7		31.9	34.3	6.2
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.7	3.7		31.9	34.3	6.2
LOS	B	A		C	C	A
Approach Delay	10.8			31.9	26.0	
Approach LOS	B			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 101.8% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

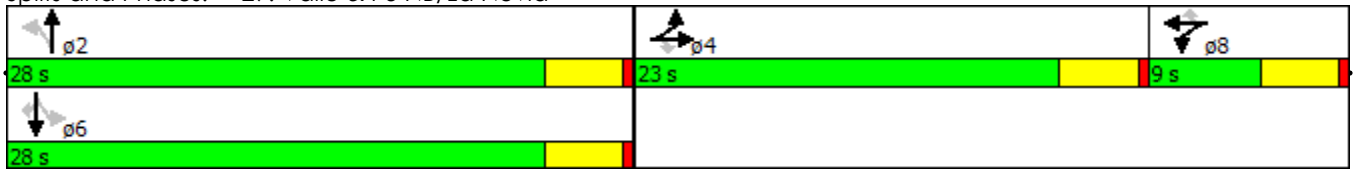


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Future Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1831	1583
Flt Permitted		0.961			0.991		0.438				0.695	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	816	1819	0	0	1295	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		13				347
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	74	0	116	116	189	368	0	0	368	347
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	23.0	23.0	23.0	9.0	9.0	9.0	28.0	28.0		28.0	28.0	28.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.1	18.1		5.1	5.1	24.3	24.3			24.3	24.3
Actuated g/C Ratio		0.32	0.32		0.09	0.09	0.42	0.42			0.42	0.42
v/c Ratio		0.84	0.13		0.72	0.47	0.55	0.47			0.67	0.40
Control Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
LOS		D	A		E	B	C	B			C	A
Approach Delay		30.8			34.3			17.3			13.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 79.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 29: Valle & I-5 NB/La Novia

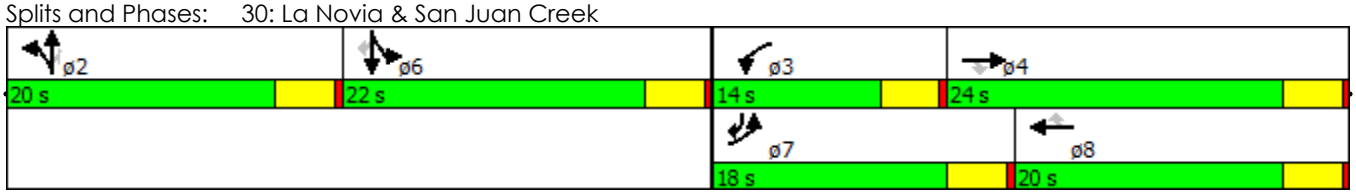


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Future Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			326
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	105	21	105	105	274	95	200	11	211	284	326
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	18.0	24.0	24.0	14.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0	18.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.8	15.1	15.1	8.7	9.7	9.7	16.1	16.1	16.1	18.1	18.1	33.9
Actuated g/C Ratio	0.16	0.21	0.21	0.12	0.14	0.14	0.22	0.22	0.22	0.25	0.25	0.47
v/c Ratio	0.65	0.27	0.05	0.49	0.42	0.63	0.24	0.48	0.03	0.47	0.61	0.35
Control Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.1			22.1			28.0			19.3	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

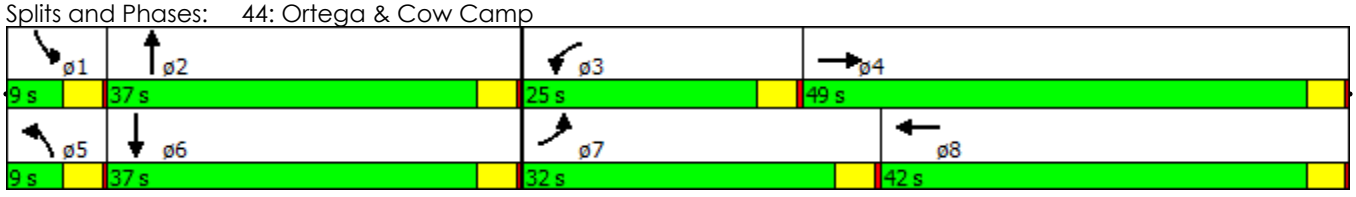


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	720	400	10	170	940	100	10	800	50	30	150	590
Future Volume (vph)	720	400	10	170	940	100	10	800	50	30	150	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3705	0	1770	3654	0	1770	3680	0	1770	3132	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3705	0	1770	3654	0	1770	3680	0	1770	3132	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			10			6			414	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	758	432	0	179	1094	0	11	895	0	32	779	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	32.0	49.0		25.0	42.0		9.0	37.0		9.0	37.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	27.0	47.6		16.3	36.9		5.0	33.2		5.0	36.6	
Actuated g/C Ratio	0.24	0.42		0.14	0.32		0.04	0.29		0.04	0.32	
v/c Ratio	0.91	0.28		0.71	0.92		0.14	0.83		0.42	0.61	
Control Delay	58.8	23.7		62.9	50.9		59.7	46.8		72.0	17.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.8	23.7		62.9	50.9		59.7	46.8		72.0	17.3	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		46.0			52.6			47.0			19.4	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 114.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 43.1		Intersection LOS: D	
Intersection Capacity Utilization 84.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp



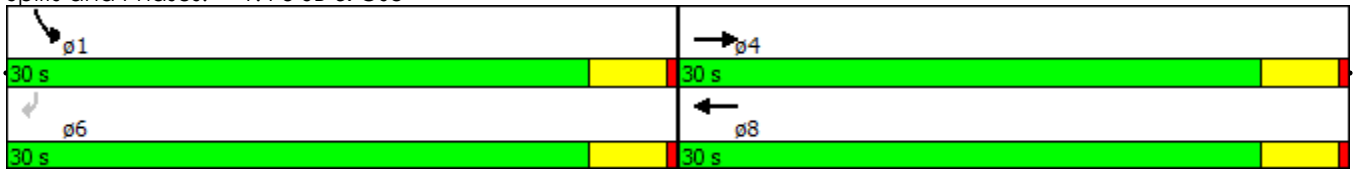
HCM Signalized Intersection Data Set 7
2035 Cumulative Without SR-241 Extension – Project Alternative 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Future Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			758						18
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1147	421	0	1484	758	0	0	0	705	0	705
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		30.0			30.0					30.0		30.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		24.1	58.2		24.1	58.2				26.1		26.1
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.45		0.45
v/c Ratio		0.54	0.27		0.70	0.48				0.46		0.56
Control Delay		13.9	0.4		16.2	1.0				12.8		14.1
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		13.9	0.4		16.2	1.0				12.8		14.1
LOS		B	A		B	A				B		B
Approach Delay		10.3			11.1							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

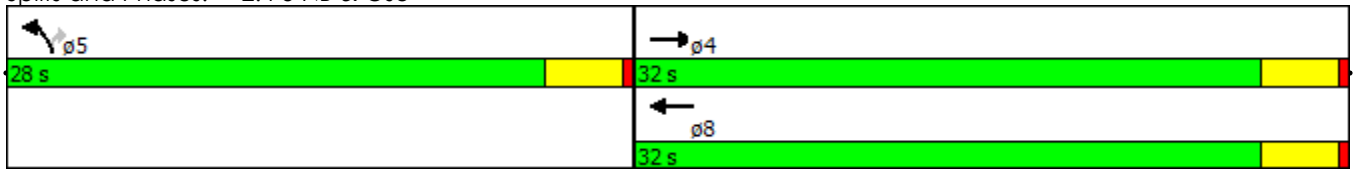


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1270	500	0	1960	1390	320	0	470	0	0	0
Future Volume (vph)	0	1270	500	0	1960	1390	320	0	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			526			1091			20			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1337	526	0	2063	1463	337	0	495	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		32.0			32.0		28.0		28.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		27.8	56.6		27.8	56.6	20.7		20.7			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.37		0.37			
v/c Ratio		0.53	0.34		0.83	0.92	0.27		0.84			
Control Delay		11.5	0.6		17.0	13.0	13.0		30.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		11.5	0.6		17.0	13.0	13.0		30.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.4			15.4							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	880	930	280	2030	0	0	0	0	30	590	70
Future Volume (vph)	0	880	930	280	2030	0	0	0	0	30	590	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			439									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	926	979	295	2137	0	0	0	0	32	621	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		21.0	40.0					20.0	20.0	20.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.4	58.5	14.0	34.4					9.7	16.1	16.1
Actuated g/C Ratio		0.28	1.00	0.24	0.59					0.17	0.28	0.28
v/c Ratio		0.65	0.62	0.70	0.71					0.06	0.64	0.15
Control Delay		21.7	1.8	29.4	10.1					18.5	22.7	4.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.7	1.8	29.4	10.1					18.5	22.7	4.4
LOS		C	A	C	B					B	C	A
Approach Delay		11.5			12.5						20.6	
Approach LOS		B			B						C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

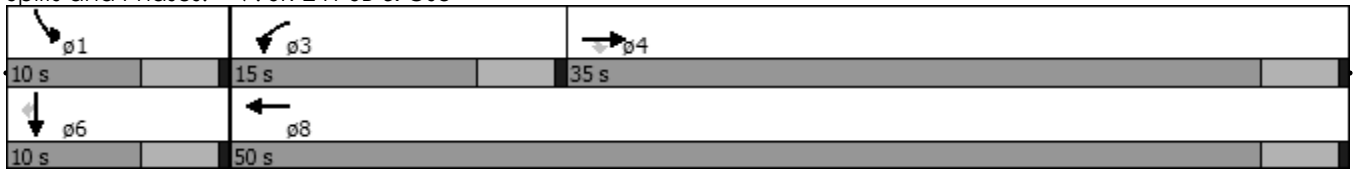
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	880	930	280	2030	0	0	0	0	30	0	70
Future Volume (vph)	0	880	930	280	2030	0	0	0	0	30	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Flt Permitted				0.950						0.950	0.996	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			447								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										10%		48%
Lane Group Flow (vph)	0	926	979	295	2137	0	0	0	0	29	39	38
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		35.0	35.0	15.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		30.2	30.2	11.0	45.2					5.8	2.4	6.0
Actuated g/C Ratio		0.51	0.51	0.19	0.76					0.10	0.04	0.10
v/c Ratio		0.36	0.96	0.90	0.55					0.18	0.27	0.16
Control Delay		9.1	29.4	57.5	3.5					27.5	5.6	2.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		9.1	29.4	57.5	3.5					27.5	5.6	2.4
LOS		A	C	E	A					C	A	A
Approach Delay		19.5			10.0						10.4	
Approach LOS		B			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 14.1		Intersection LOS: B	
Intersection Capacity Utilization 87.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

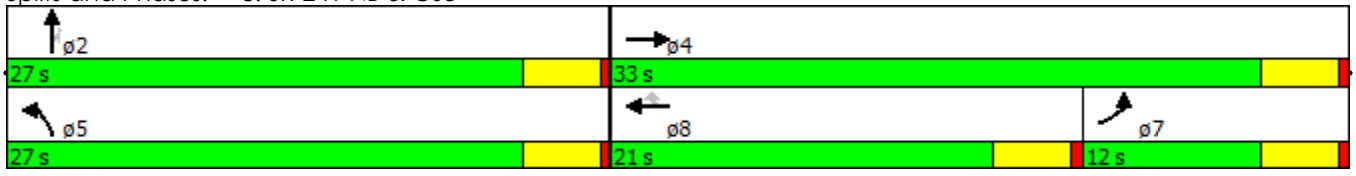


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	1010	1040	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	1010	1040	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1305	379	1063	1095	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	12.0	33.0			21.0	21.0	27.0	27.0	27.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	8.0	29.0			17.0	17.0	23.0	23.0	23.0			
Actuated g/C Ratio	0.13	0.48			0.28	0.28	0.38	0.38	0.38			
v/c Ratio	0.90	0.33			0.91	0.76	0.81	0.81	0.13			
Control Delay	51.9	10.2			31.9	27.2	22.8	22.6	3.6			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	51.9	10.2			31.9	27.2	22.8	22.6	3.6			
LOS	D	B			C	C	C	C	A			
Approach Delay		27.9			30.8			22.0				
Approach LOS		C			C			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 26.2 Intersection LOS: C
Intersection Capacity Utilization 74.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

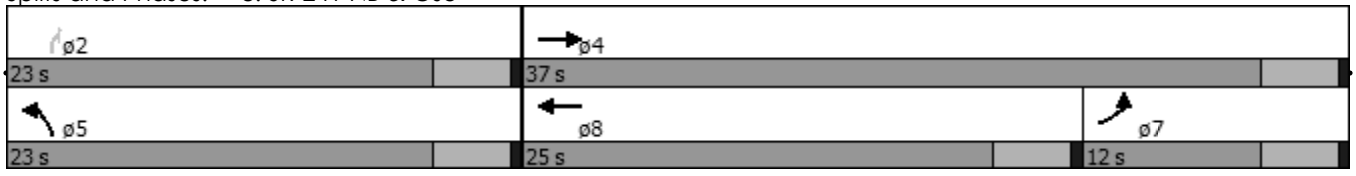


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	1010	0	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	1010	0	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					134				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1684	0	1063	0	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	12.0	37.0			25.0		23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	8.0	33.0			21.0		19.0		19.0			
Actuated g/C Ratio	0.13	0.55			0.35		0.32		0.32			
v/c Ratio	0.90	0.29			0.94		0.98		0.15			
Control Delay	51.9	7.7			29.9		45.4		4.5			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	51.9	7.7			29.9		45.4		4.5			
LOS	D	A			C		D		A			
Approach Delay		26.5			29.9							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 32.8		Intersection LOS: C	
Intersection Capacity Utilization 87.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

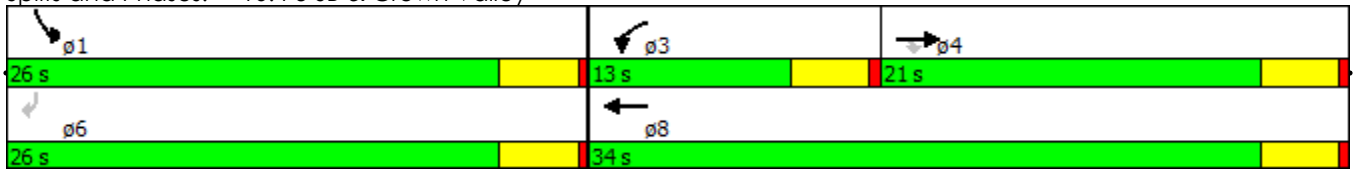


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1690	230	370	1290	0	0	0	0	1180	0	710
Future Volume (vph)	0	1690	230	370	1290	0	0	0	0	1180	0	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1779	242	389	1358	0	0	0	0	1242	0	747
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		21.0	21.0	13.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		17.0	17.0	9.0	30.0					22.0		22.0
Actuated g/C Ratio		0.28	0.28	0.15	0.50					0.37		0.37
v/c Ratio		0.83	0.40	0.76	0.53					0.68		0.69
Control Delay		24.5	5.0	35.9	11.2					18.3		18.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		24.5	5.0	35.9	11.2					18.3		18.1
LOS		C	A	D	B					B		B
Approach Delay		22.2			16.7							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

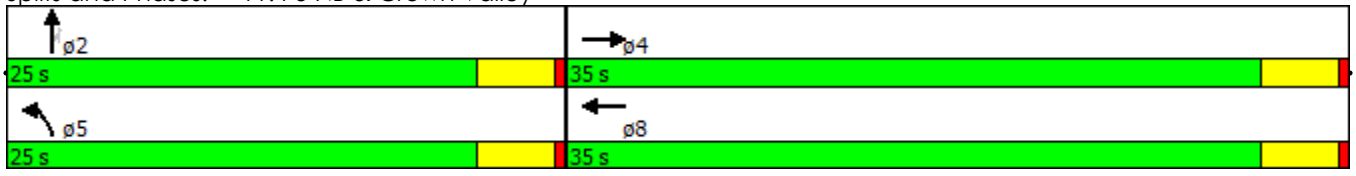


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2040	760	0	1400	1220	330	0	540	0	0	0
Future Volume (vph)	0	2040	760	0	1400	1220	330	0	540	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5910	1283	0	4585	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5910	1260	0	4585	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71	528		271	642		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			34%			50%	10%		47%			
Lane Group Flow (vph)	0	2419	528	0	2116	642	312	302	301	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.78	0.42		0.85	0.47	0.53	0.58	0.56			
Control Delay		13.7	1.0		15.1	1.2	19.6	20.2	19.6			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		13.7	1.0		15.1	1.2	19.6	20.2	19.6			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.4			11.8			19.8				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

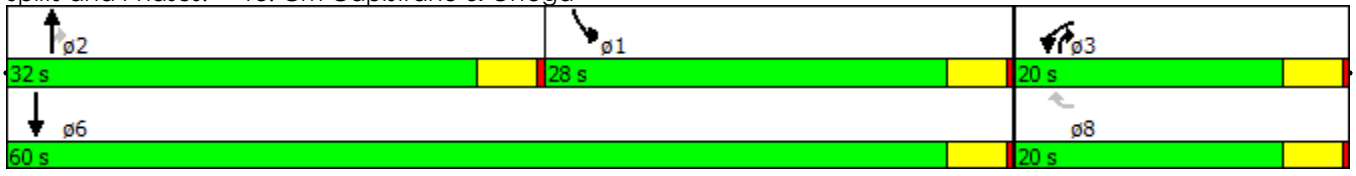


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	120	530	560	30	460	670
Future Volume (vph)	120	530	560	30	460	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1681	1474	1863	1518	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		558		23		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	558	589	32	484	705
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	32.0	20.0	28.0	60.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.4	11.2	28.1	39.5	24.1	56.1
Actuated g/C Ratio	0.15	0.15	0.37	0.52	0.32	0.74
v/c Ratio	0.47	0.80	0.85	0.04	0.86	0.51
Control Delay	35.0	13.0	36.8	3.8	42.5	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	13.0	36.8	3.8	42.5	6.2
LOS	C	B	D	A	D	A
Approach Delay	17.0		35.1			21.0
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1280	610
Future Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1280	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				423
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1200	0	11	1347	642
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	22.0		9.0	11.0		19.0	50.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.0	17.0		6.4	6.1		15.1	53.6		5.0	36.2	36.2
Actuated g/C Ratio	0.19	0.20		0.08	0.07		0.18	0.64		0.06	0.43	0.43
v/c Ratio	0.86	0.25		0.08	0.16		0.86	0.37		0.10	0.88	0.72
Control Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	30.8	12.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	47.3	1.7
Total Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	78.1	13.8
LOS	D	B		D	C		E	A		D	E	B
Approach Delay		43.3			32.1			18.2			57.3	
Approach LOS		D			C			B			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 83.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 41.0 Intersection LOS: D
Intersection Capacity Utilization 81.9% ICU Level of Service D
Analysis Period (min) 15

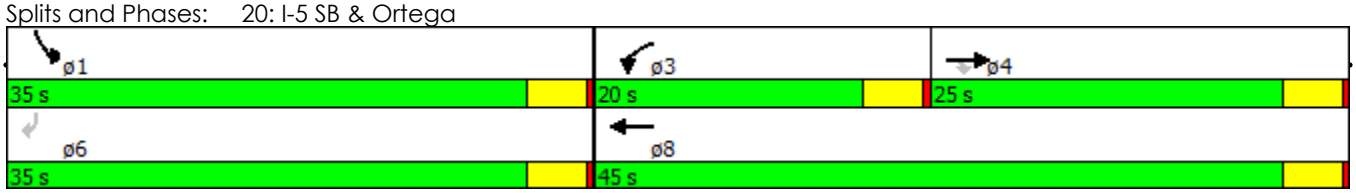
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1200	460	540	930	0	0	0	0	790	0	980
Future Volume (vph)	0	1200	460	540	930	0	0	0	0	790	0	980
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			435									172
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1263	484	568	979	0	0	0	0	832	0	1032
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.86	0.67	0.83	0.52					0.61		0.77
Control Delay		35.1	9.4	42.8	14.2					21.9		22.2
Queue Delay		1.6	0.0	0.0	0.6					0.0		0.0
Total Delay		36.6	9.4	42.8	14.8					21.9		22.2
LOS		D	A	D	B					C		C
Approach Delay		29.1			25.1							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 20: I-5 SB & Ortega

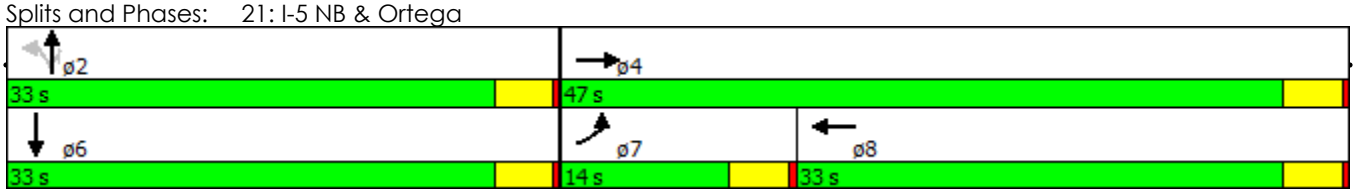


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1310	700	0	1880	10	260	10	850	0	0	10
Future Volume (vph)	10	1310	700	0	1880	10	260	10	850	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5374	1583	0	5529	0	0	1676	1583	0	1611	0
Flt Permitted	0.950							0.850				
Satd. Flow (perm)	1770	5374	1555	0	5529	0	0	1457	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		87	479		1			31	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			35%						36%			
Lane Group Flow (vph)	11	1637	479	0	1990	0	0	607	573	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	34.0	71.2		32.0			29.2	29.2		29.2	
Actuated g/C Ratio	0.09	0.48	1.00		0.45			0.41	0.41		0.41	
v/c Ratio	0.07	0.63	0.31		0.80			0.99	0.83		0.01	
Control Delay	33.3	14.1	0.5		20.7			57.4	30.8		0.0	
Queue Delay	0.0	1.4	0.0		0.0			0.0	0.0		0.0	
Total Delay	33.3	15.5	0.5		20.7			57.4	30.8		0.0	
LOS	C	B	A		C			E	C		A	
Approach Delay		12.2			20.7			44.5			0.0	
Approach LOS		B			C			D			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 71.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 22.6 Intersection LOS: C
Intersection Capacity Utilization 82.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

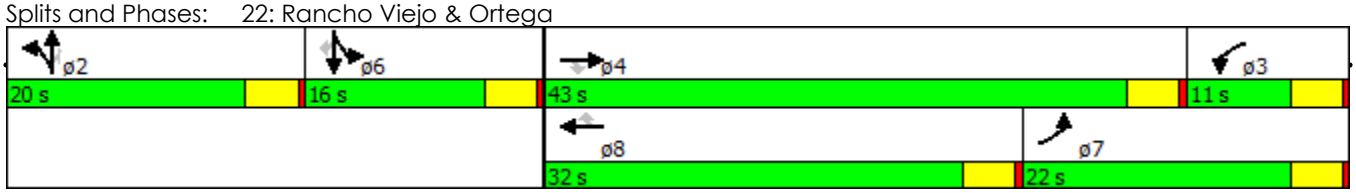


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	1190	440	80	1680	460	280	160	40	210	220	120
Future Volume (vph)	340	1190	440	80	1680	460	280	160	40	210	220	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1855	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.996	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1855	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			427			427			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	358	1253	463	84	1768	484	295	168	42	199	254	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	22.0	43.0	43.0	11.0	32.0	32.0	20.0	20.0	20.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	41.2	41.2	6.8	28.0	28.0	16.0	16.0	16.0	12.0	12.0	12.0
Actuated g/C Ratio	0.20	0.46	0.46	0.08	0.31	0.31	0.18	0.18	0.18	0.13	0.13	0.13
v/c Ratio	1.01	0.75	0.51	0.63	1.04	0.62	0.47	0.51	0.11	0.84	1.03	0.36
Control Delay	88.7	24.4	4.7	61.9	63.6	8.0	36.0	39.6	0.5	69.1	105.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.7	24.4	4.7	61.9	63.6	8.0	36.0	39.6	0.5	69.1	105.5	6.5
LOS	F	C	A	E	E	A	D	D	A	E	F	A
Approach Delay		31.1			52.0			34.2			71.4	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 44.5 Intersection LOS: D
Intersection Capacity Utilization 89.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

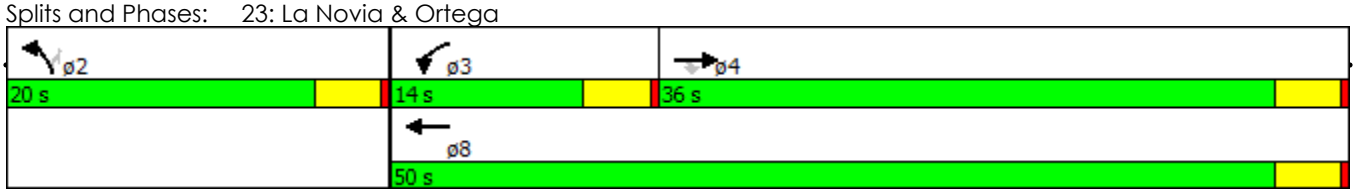


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1050	280	260	1930	340	210
Future Volume (vph)	1050	280	260	1930	340	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		279				221
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1105	295	274	2032	358	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	36.0	36.0	14.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	31.4	31.4	9.4	44.8	16.0	16.0
Actuated g/C Ratio	0.46	0.46	0.14	0.65	0.23	0.23
v/c Ratio	0.70	0.35	0.58	0.90	0.45	0.42
Control Delay	17.9	3.3	33.5	17.3	25.1	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	3.3	33.5	17.3	25.1	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.9			19.2	18.0	
Approach LOS	B			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

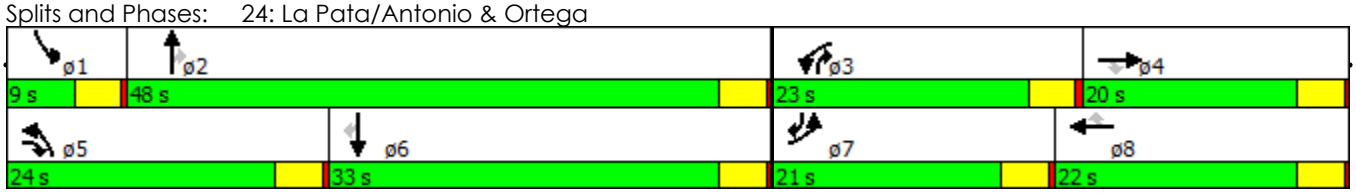


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	150	600	330	420	20	570	1380	220	10	1480	910
Future Volume (vph)	460	150	600	330	420	20	570	1380	220	10	1480	910
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			142			232			98
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	484	158	632	347	442	21	600	1453	232	11	1558	958
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	21.0	20.0	24.0	23.0	22.0	22.0	24.0	48.0	23.0	9.0	33.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.5	13.6	33.6	19.0	16.0	16.0	20.0	51.3	70.3	5.0	29.0	45.5
Actuated g/C Ratio	0.17	0.14	0.34	0.19	0.16	0.16	0.20	0.53	0.72	0.05	0.30	0.47
v/c Ratio	0.81	0.31	1.11	1.01	0.74	0.06	0.83	0.50	0.20	0.12	0.94	0.66
Control Delay	51.1	39.2	99.9	91.7	46.8	0.3	48.7	16.4	1.1	48.5	45.9	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	39.2	99.9	91.7	46.8	0.3	48.7	16.4	1.1	48.5	45.9	18.4
LOS	D	D	F	F	D	A	D	B	A	D	D	B
Approach Delay		73.8			64.9			23.3			35.5	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 97.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.11			
Intersection Signal Delay: 42.0		Intersection LOS: D	
Intersection Capacity Utilization 96.0%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 24: La Pata/Antonio & Ortega

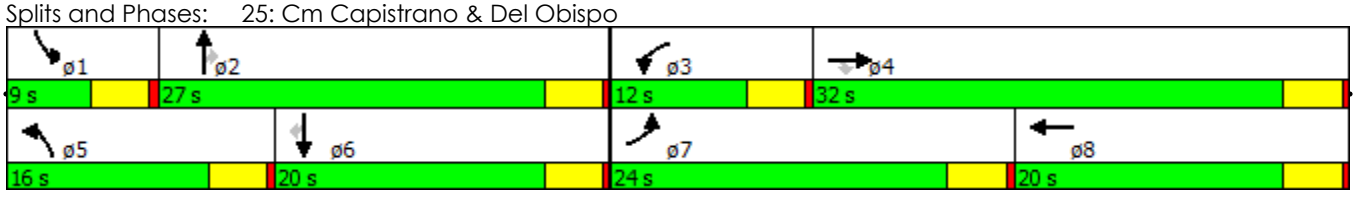


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Future Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340		5				177			409
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	421	505	432	158	526	0	484	505	147	32	326	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	32.0	32.0	12.0	20.0		16.0	27.0	27.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.9	27.3	27.3	7.7	15.1		12.0	28.4	28.4	5.0	16.0	16.0
Actuated g/C Ratio	0.25	0.35	0.35	0.10	0.19		0.15	0.36	0.36	0.06	0.20	0.20
v/c Ratio	0.94	0.41	0.58	0.47	0.78		0.93	0.75	0.22	0.29	0.86	0.75
Control Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
LOS	E	C	A	D	D		E	C	A	D	E	B
Approach Delay		29.8			39.3			41.2			31.4	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 35.0		Intersection LOS: C	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	730	540	590	580	580	550
Future Volume (vph)	730	540	590	580	580	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3355	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3355	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	39	333		18		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		26%				
Lane Group Flow (vph)	916	420	621	611	611	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	0.89	0.65	0.62	0.67	0.82	0.29
Control Delay	32.0	9.8	21.9	10.5	33.9	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	9.8	21.9	10.5	33.9	7.2
LOS	C	A	C	B	C	A
Approach Delay	25.0		16.3			20.9
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	630	300	880	50	560	720
Future Volume (vph)	630	300	880	50	560	720
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		316		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	663	316	926	53	589	758
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	18.0		25.0		17.0	42.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	13.7	59.7	21.3	59.7	12.7	38.0
Actuated g/C Ratio	0.23	1.00	0.36	1.00	0.21	0.64
v/c Ratio	0.84	0.20	0.73	0.03	0.81	0.34
Control Delay	33.9	0.3	21.1	0.0	32.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	0.3	21.1	0.0	32.9	5.6
LOS	C	A	C	A	C	A
Approach Delay	23.0		20.0			17.5
Approach LOS	C		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	880	390	350
Future Volume (vph)	520	630	240	880	390	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.655	0.950	
Satd. Flow (perm)	1863	1493	0	2318	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				295
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1179	411	368
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.3	32.3		32.3	17.1	17.1
Actuated g/C Ratio	0.56	0.56		0.56	0.30	0.30
v/c Ratio	0.52	0.59		0.91	0.78	0.54
Control Delay	9.8	3.0		23.1	32.6	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	9.8	3.0		23.1	32.6	8.0
LOS	A	A		C	C	A
Approach Delay	6.1			23.1	21.0	
Approach LOS	A			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 90.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Future Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				526
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	463	84	0	326	158	105	232	0	0	369	526
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	22.0	22.0	22.0	16.0	16.0	16.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.3	17.3		11.9	11.9	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.29	0.29		0.20	0.20	0.30	0.30			0.30	0.30
v/c Ratio		0.89	0.16		0.87	0.36	0.54	0.41			0.71	0.62
Control Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
LOS		D	A		D	A	C	B			C	A
Approach Delay		36.6			36.1			22.6			14.8	
Approach LOS		D			D			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 25.8 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

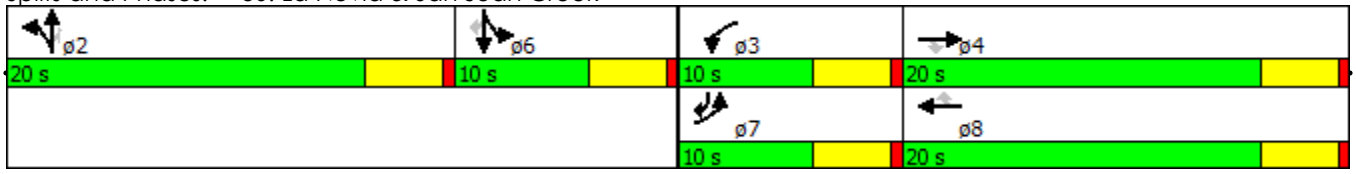
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Future Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			284			164			337
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	126	95	53	221	284	137	263	42	179	168	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.0	16.0	5.9	11.8	11.8	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.11	0.21	0.21	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.88	0.24	0.17	0.28	0.57	0.53	0.27	0.49	0.08	0.94	0.84	0.49
Control Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
LOS	E	B	A	C	C	A	B	C	A	F	E	A
Approach Delay		37.6			16.3			18.3			40.2	
Approach LOS		D			B			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 28.6		Intersection LOS: C	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

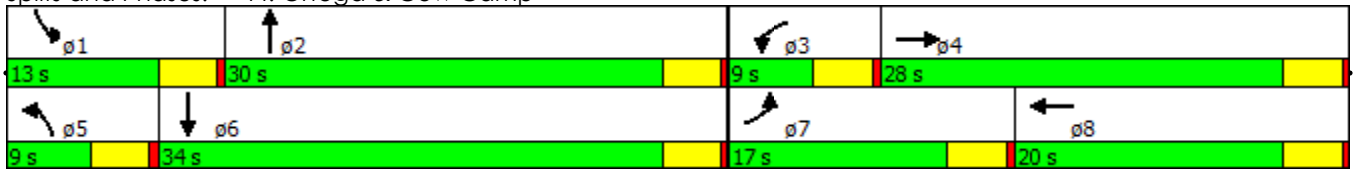


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	480	870	10	40	280	20	10	90	180	80	680	570
Future Volume (vph)	480	870	10	40	280	20	10	90	180	80	680	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3678	0	1770	3261	0	1770	3407	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3678	0	1770	3261	0	1770	3407	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			189			302	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	505	927	0	42	316	0	11	284	0	84	1316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	17.0	28.0		9.0	20.0		9.0	30.0		13.0	34.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	12.8	24.8		5.1	13.0		5.1	27.3		8.0	35.2	
Actuated g/C Ratio	0.17	0.33		0.07	0.17		0.07	0.36		0.11	0.47	
v/c Ratio	0.83	0.75		0.35	0.49		0.09	0.22		0.45	0.75	
Control Delay	45.2	28.5		44.4	30.1		37.3	7.5		41.0	16.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	45.2	28.5		44.4	30.1		37.3	7.5		41.0	16.8	
LOS	D	C		D	C		D	A		D	B	
Approach Delay		34.4			31.8			8.6			18.3	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 74.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.5		Intersection LOS: C	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp

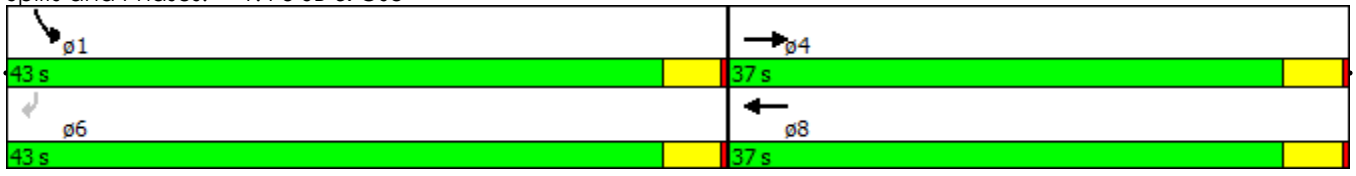


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1710	520	0	1460	660	0	0	0	1320	0	400
Future Volume (vph)	0	1710	520	0	1460	660	0	0	0	1320	0	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			411			695						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1800	547	0	1537	695	0	0	0	1389	0	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		37.0			37.0					43.0		43.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		32.9	79.9		32.9	79.9				39.0		39.0
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.49		0.49
v/c Ratio		0.86	0.36		0.73	0.44				0.83		0.31
Control Delay		26.8	0.6		22.4	0.9				23.1		12.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.8	0.6		22.4	0.9				23.1		12.7
LOS		C	A		C	A				C		B
Approach Delay		20.7			15.7							
Approach LOS		C			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 18.9		Intersection LOS: B	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

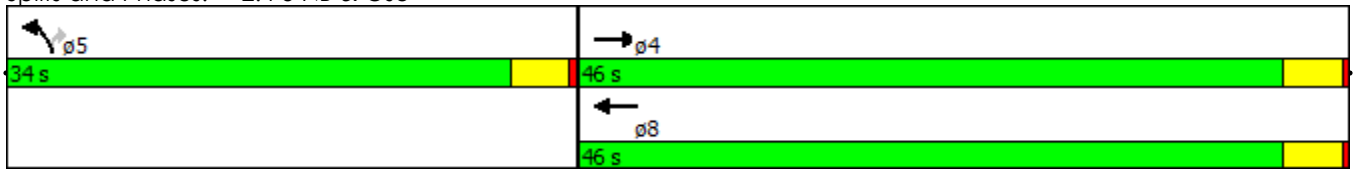


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2600	390	0	1510	720	590	0	610	0	0	0
Future Volume (vph)	0	2600	390	0	1510	720	590	0	610	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			181			758			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2737	411	0	1589	758	621	0	642	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		46.0			46.0		34.0		34.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		42.0	80.0		42.0	80.0	30.0		30.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.38		0.38			
v/c Ratio		1.03	0.27		0.60	0.48	0.48		1.07			
Control Delay		44.7	0.4		14.3	1.0	20.6		82.3			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.7	0.4		14.3	1.0	20.6		82.3			
LOS		D	A		B	A	C		F			
Approach Delay		38.9			10.0							
Approach LOS		D			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 31.3 Intersection LOS: C
Intersection Capacity Utilization 94.7% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

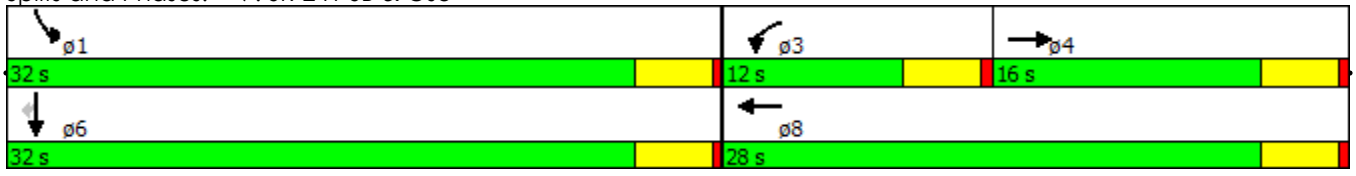


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	680	1150	100	1460	0	0	0	0	330	1080	320
Future Volume (vph)	0	680	1150	100	1460	0	0	0	0	330	1080	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			341									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	716	1211	105	1537	0	0	0	0	347	1137	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		16.0		12.0	28.0					32.0	32.0	32.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		13.9	59.3	7.4	23.3					28.0	28.0	28.0
Actuated g/C Ratio		0.23	1.00	0.12	0.39					0.47	0.47	0.47
v/c Ratio		0.60	0.77	0.48	0.77					0.21	0.68	0.42
Control Delay		23.7	3.6	31.9	18.8					9.8	14.9	9.5
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		23.7	3.6	31.9	18.8					9.8	14.9	9.5
LOS		C	A	C	B					A	B	A
Approach Delay		11.1			19.6						13.0	
Approach LOS		B			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 64.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

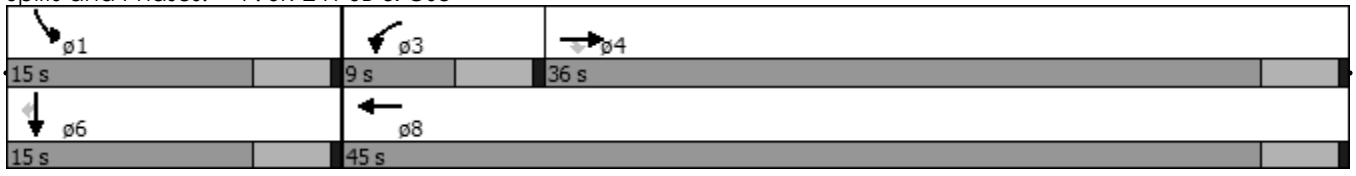


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	680	1150	100	1460	0	0	0	0	330	0	320
Future Volume (vph)	0	680	1150	100	1460	0	0	0	0	330	0	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Flt Permitted				0.950						0.950	0.977	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			784								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										31%		36%
Lane Group Flow (vph)	0	716	1211	105	1537	0	0	0	0	239	229	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		36.0	36.0	9.0	45.0					15.0	15.0	15.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		32.1	32.1	5.0	39.1					11.0	11.0	11.0
Actuated g/C Ratio		0.55	0.55	0.09	0.67					0.19	0.19	0.19
v/c Ratio		0.25	0.99	0.69	0.45					0.75	0.63	0.60
Control Delay		7.5	31.5	53.5	4.9					40.9	23.4	21.7
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.5	31.5	53.5	4.9					40.9	23.4	21.7
LOS		A	C	D	A					D	C	C
Approach Delay		22.6			8.0						29.0	
Approach LOS		C			A						C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 18.0 Intersection LOS: B
Intersection Capacity Utilization 99.1% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

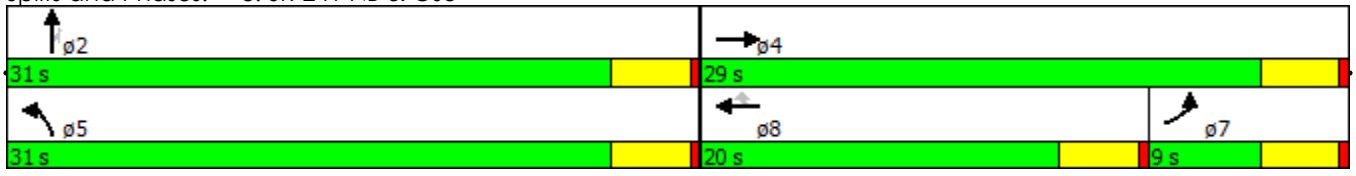


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	910	610	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	910	610	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	600	63	958	642	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.1	20.6			17.1	17.1	27.1	27.1	27.1			
Actuated g/C Ratio	0.09	0.37			0.31	0.31	0.49	0.49	0.49			
v/c Ratio	0.13	0.72			0.38	0.12	0.57	0.37	0.30			
Control Delay	25.9	18.5			16.8	3.2	12.6	10.5	7.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.9	18.5			16.8	3.2	12.6	10.5	7.3			
LOS	C	B			B	A	B	B	A			
Approach Delay		18.8			15.5			11.2				
Approach LOS		B			B			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 64.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

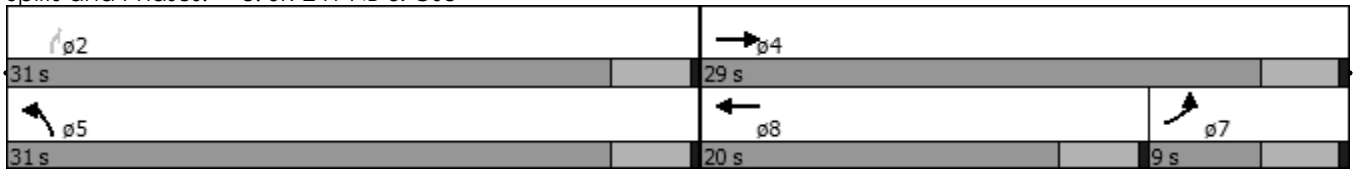


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	910	0	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	910	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					29				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	663	0	958	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.2	20.6			17.0		27.1		27.1			
Actuated g/C Ratio	0.09	0.37			0.31		0.49		0.49			
v/c Ratio	0.13	0.72			0.43		0.57		0.30			
Control Delay	25.8	18.5			16.5		12.6		7.3			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.8	18.5			16.5		12.6		7.3			
LOS	C	B			B		B		A			
Approach Delay		18.8			16.5							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 99.1% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

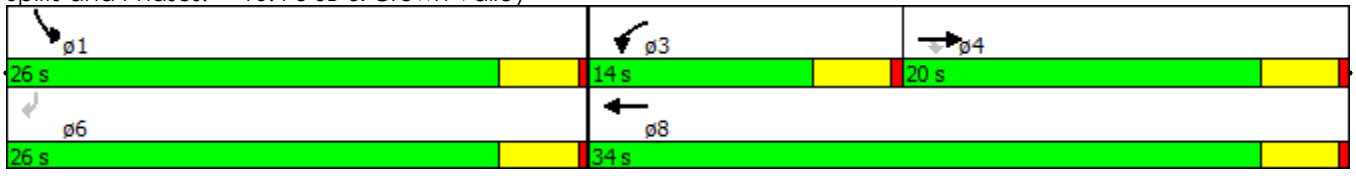


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1820	320	490	1390	0	0	0	0	1390	0	1060
Future Volume (vph)	0	1820	320	490	1390	0	0	0	0	1390	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1916	337	516	1463	0	0	0	0	1463	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		0.95	0.52	0.90	0.58					0.80		1.03
Control Delay		34.7	5.7	47.2	11.7					21.2		57.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.7	5.7	47.2	11.7					21.2		57.1
LOS		C	A	D	B					C		E
Approach Delay		30.4			20.9							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 71.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2590	510	0	1670	1490	240	0	440	0	0	0
Future Volume (vph)	0	2590	510	0	1670	1490	240	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4585	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4585	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10	396		335	784		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2780	483	0	2542	784	228	247	241	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.77	0.38		0.88	0.58	0.51	0.61	0.58			
Control Delay		10.8	0.9		13.8	1.8	23.4	25.5	24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.8	0.9		13.8	1.8	23.4	25.5	24.2			
LOS		B	A		B	A	C	C	C			
Approach Delay		9.3			10.9			24.4				
Approach LOS		A			B			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 65.3% ICU Level of Service C
Analysis Period (min) 15

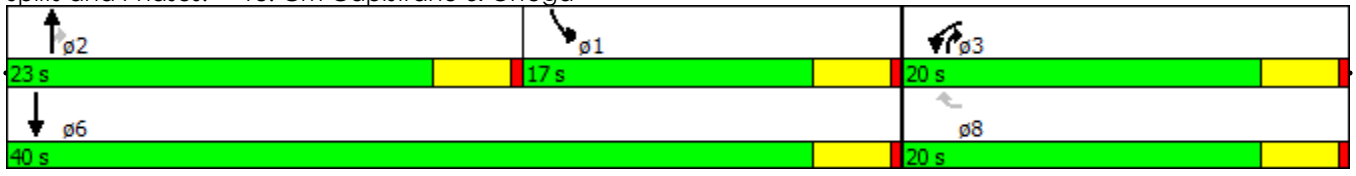
Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	540	100	380	610
Future Volume (vph)	160	490	540	100	380	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		493		73		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	568	105	400	642
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	23.0	20.0	17.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	19.1	29.6	13.0	36.1
Actuated g/C Ratio	0.19	0.19	0.35	0.54	0.24	0.66
v/c Ratio	0.49	0.76	0.87	0.12	0.95	0.52
Control Delay	24.5	10.8	35.8	2.2	58.1	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	10.8	35.8	2.2	58.1	7.4
LOS	C	B	D	A	E	A
Approach Delay	14.2		30.5			26.9
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	660	10	150	10	10	10	160	1280	10	10	1000	820
Future Volume (vph)	660	10	150	10	10	10	160	1280	10	10	1000	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			1				595
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	695	169	0	11	22	0	168	1358	0	11	1053	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		19.0	68.0		9.0	58.0	58.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.8	27.3		8.0	6.2		15.1	71.6		5.0	54.3	54.3
Actuated g/C Ratio	0.23	0.24		0.07	0.05		0.13	0.63		0.04	0.48	0.48
v/c Ratio	0.89	0.35		0.09	0.21		0.71	0.42		0.14	0.62	0.84
Control Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	25.0	17.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	26.1	9.0
Total Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	51.2	26.2
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		48.1			43.5			18.2			40.0	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 113.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 34.0		Intersection LOS: C	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

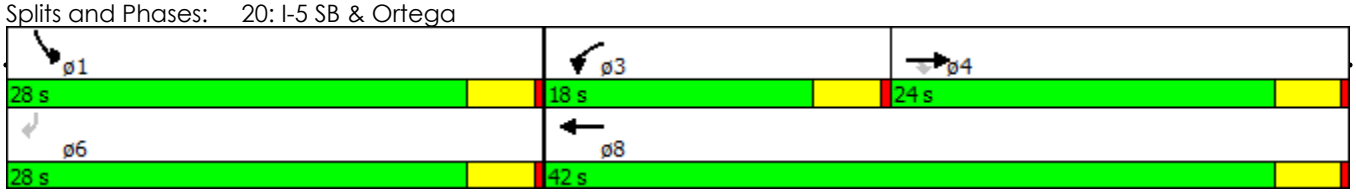
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1450	480	610	810	0	0	0	0	1000	0	1020
Future Volume (vph)	0	1450	480	610	810	0	0	0	0	1000	0	1020
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			443									275
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1526	505	642	853	0	0	0	0	1053	0	1074
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		24.0	24.0	18.0	42.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		20.0	20.0	14.0	38.0					24.0		24.0
Actuated g/C Ratio		0.29	0.29	0.20	0.54					0.34		0.34
v/c Ratio		0.96	0.67	0.92	0.42					0.88		0.85
Control Delay		40.2	9.0	48.1	10.3					31.9		23.7
Queue Delay		3.0	0.0	0.0	0.0					0.0		0.0
Total Delay		43.2	9.0	48.1	10.3					31.9		23.7
LOS		D	A	D	B					C		C
Approach Delay		34.7			26.5							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 29.9		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 20: I-5 SB & Ortega

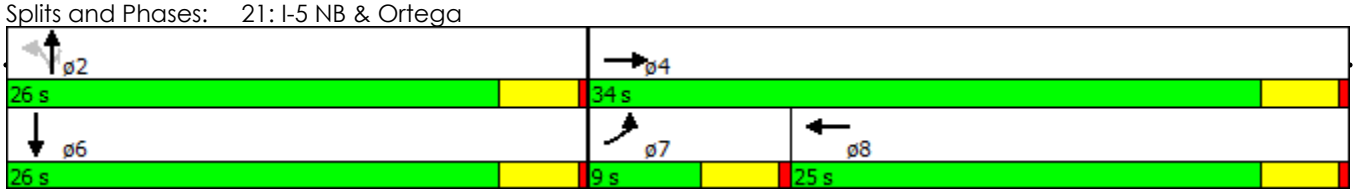


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1760	690	0	1790	10	210	10	670	0	0	10
Future Volume (vph)	10	1760	690	0	1790	10	210	10	670	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5463	1583	0	5529	0	0	1680	1583	0	1611	0
Flt Permitted	0.950							0.847				
Satd. Flow (perm)	1770	5463	1555	0	5529	0	0	1456	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35	574		2			6	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			21%						35%			
Lane Group Flow (vph)	11	2005	574	0	1895	0	0	479	458	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	29.6	59.6		27.8			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.37	0.37		0.37	
v/c Ratio	0.07	0.73	0.37		0.73			0.89	0.71		0.02	
Control Delay	26.7	13.6	0.7		16.8			39.7	20.7		0.0	
Queue Delay	0.0	48.0	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.7	61.7	0.7		16.8			39.7	20.7		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		48.0			16.8			30.4			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.0 Intersection LOS: C
Intersection Capacity Utilization 78.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

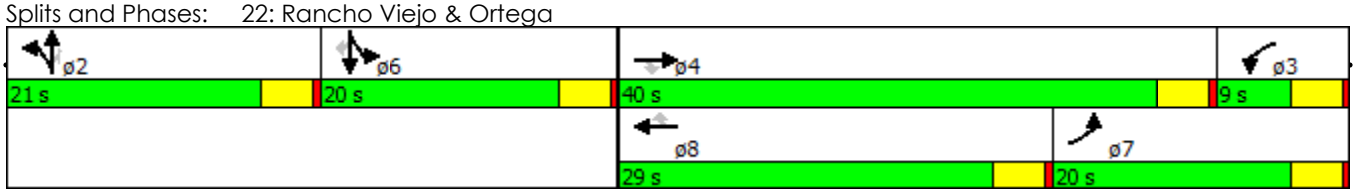


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	1290	380	70	1050	270	440	150	50	380	150	250
Future Volume (vph)	240	1290	380	70	1050	270	440	150	50	380	150	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			322			284			158			254
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	253	1358	400	74	1105	284	463	158	53	276	282	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	40.0	40.0	9.0	29.0	29.0	21.0	21.0	21.0	20.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.2	36.1	36.1	5.0	23.9	23.9	17.0	17.0	17.0	16.0	16.0	16.0
Actuated g/C Ratio	0.17	0.41	0.41	0.06	0.27	0.27	0.19	0.19	0.19	0.18	0.18	0.18
v/c Ratio	0.83	0.91	0.51	0.74	0.74	0.45	0.68	0.44	0.13	0.86	0.85	0.53
Control Delay	59.7	35.6	6.9	82.9	33.0	5.8	39.2	36.6	0.6	62.1	60.8	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	35.6	6.9	82.9	33.0	5.8	39.2	36.6	0.6	62.1	60.8	9.4
LOS	E	D	A	F	C	A	D	D	A	E	E	A
Approach Delay		33.0			30.2			35.5			44.8	
Approach LOS		C			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 34.4 Intersection LOS: C
Intersection Capacity Utilization 81.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

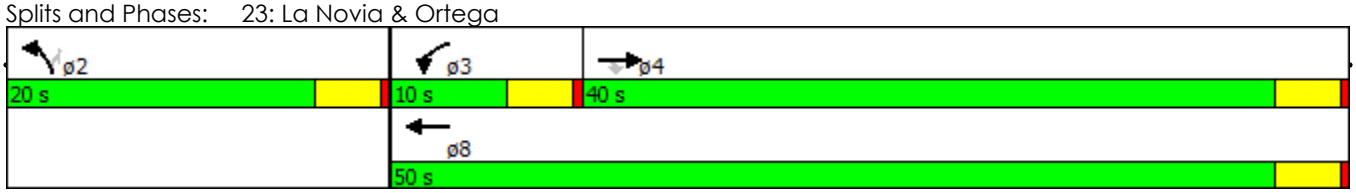


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1530	300	240	1170	260	210
Future Volume (vph)	1530	300	240	1170	260	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		229				167
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1611	316	253	1232	274	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	40.0	40.0	10.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	35.7	35.7	6.0	45.7	16.0	16.0
Actuated g/C Ratio	0.51	0.51	0.09	0.66	0.23	0.23
v/c Ratio	0.91	0.35	0.86	0.54	0.35	0.46
Control Delay	24.7	4.2	60.3	7.5	24.1	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	4.2	60.3	7.5	24.1	10.7
LOS	C	A	E	A	C	B
Approach Delay	21.4			16.5	18.1	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 19.1 Intersection LOS: B
Intersection Capacity Utilization 72.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

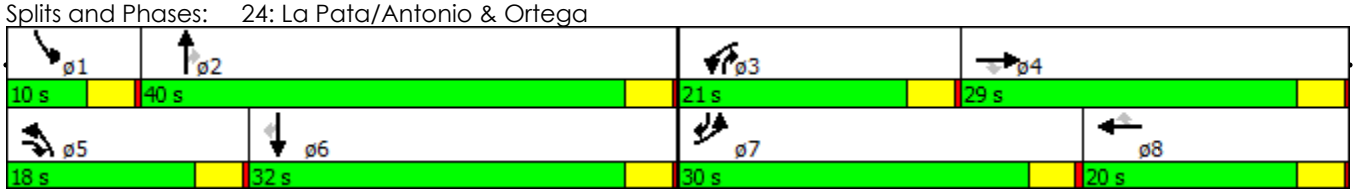


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	780	640	240	220	210	10	400	1110	350	40	1350	700
Future Volume (vph)	780	640	240	220	210	10	400	1110	350	40	1350	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			185			98			165
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	821	674	253	232	221	11	421	1168	368	42	1421	737
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	30.0	29.0	18.0	21.0	20.0	20.0	18.0	40.0	21.0	10.0	32.0	30.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	25.3	22.7	36.5	15.6	13.1	13.1	13.7	40.0	55.6	5.9	28.1	53.4
Actuated g/C Ratio	0.26	0.24	0.38	0.16	0.14	0.14	0.14	0.42	0.58	0.06	0.29	0.56
v/c Ratio	0.88	0.78	0.41	0.81	0.45	0.03	0.84	0.50	0.40	0.39	0.87	0.42
Control Delay	46.9	41.7	17.3	61.6	41.2	0.2	56.5	23.2	9.0	55.7	40.1	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	41.7	17.3	61.6	41.2	0.2	56.5	23.2	9.0	55.7	40.1	9.0
LOS	D	D	B	E	D	A	E	C	A	E	D	A
Approach Delay		40.6			50.4			27.7			30.0	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 96.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 33.7 Intersection LOS: C
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

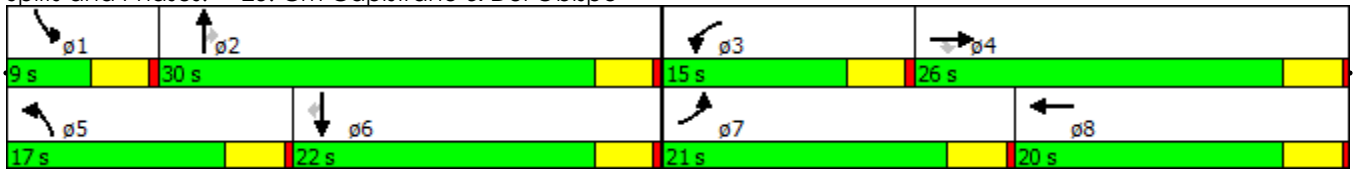


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Future Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3466	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3466	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			304		13				198			283
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	568	442	379	652	0	579	537	242	63	389	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	21.0	26.0	26.0	15.0	20.0		17.0	30.0	30.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	17.0	22.1	22.1	10.9	16.0		13.0	27.8	27.8	5.0	18.0	18.0
Actuated g/C Ratio	0.21	0.28	0.28	0.14	0.20		0.16	0.35	0.35	0.06	0.22	0.22
v/c Ratio	1.01	0.58	0.69	0.81	0.93		1.04	0.83	0.37	0.57	0.93	0.68
Control Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
LOS	F	C	B	D	D		F	D	A	E	E	B
Approach Delay		38.7			51.1			52.1			40.2	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 45.7		Intersection LOS: D	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	640	540	500	680	730
Future Volume (vph)	840	640	540	500	680	730
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	343		9		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1073	485	568	526	716	768
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	1.04	0.74	0.57	0.58	0.96	0.38
Control Delay	60.9	14.3	21.0	8.7	51.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	14.3	21.0	8.7	51.5	7.9
LOS	E	B	C	A	D	A
Approach Delay	46.4		15.1			28.9
Approach LOS	D		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 75.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	360	690	50	600	970
Future Volume (vph)	840	360	690	50	600	970
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		379		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	884	379	726	53	632	1021
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	22.0		20.0		18.0	38.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	59.5	16.4	59.5	13.6	34.0
Actuated g/C Ratio	0.29	1.00	0.28	1.00	0.23	0.57
v/c Ratio	0.88	0.24	0.74	0.03	0.81	0.50
Control Delay	31.9	0.4	25.8	0.0	31.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	0.4	25.8	0.0	31.6	8.9
LOS	C	A	C	A	C	A
Approach Delay	22.4		24.1			17.6
Approach LOS	C		C			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15

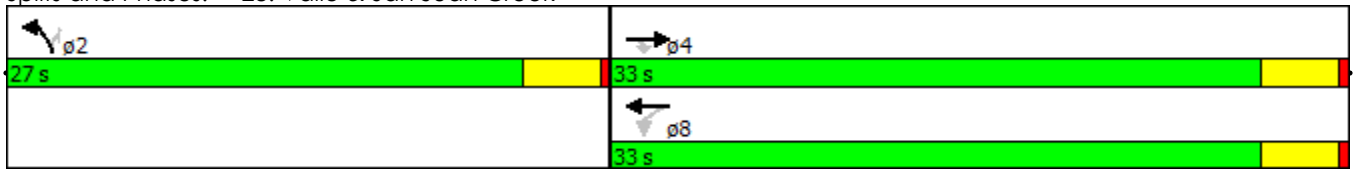
Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	600	580	110	920	570	240
Future Volume (vph)	600	580	110	920	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3522	1770	1583
Flt Permitted				0.685	0.950	
Satd. Flow (perm)	1863	1493	0	2424	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				176
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	632	611	0	1084	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	33.0	33.0	33.0	33.0	27.0	27.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.4	28.4		28.4	23.0	23.0
Actuated g/C Ratio	0.48	0.48		0.48	0.39	0.39
v/c Ratio	0.71	0.59		0.94	0.87	0.35
Control Delay	17.7	3.7		31.9	34.3	6.2
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.7	3.7		31.9	34.3	6.2
LOS	B	A		C	C	A
Approach Delay	10.8			31.9	26.0	
Approach LOS	B			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 101.8% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

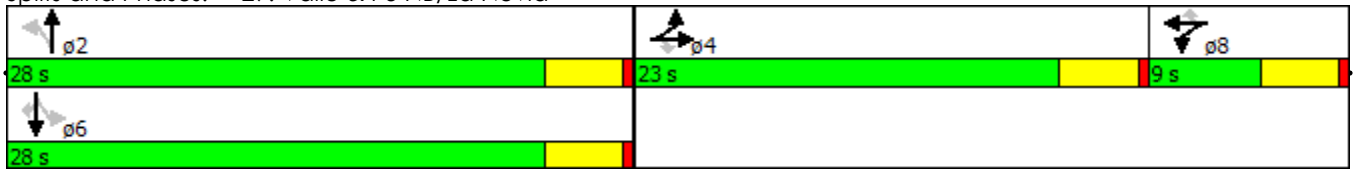


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Future Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1831	1583
Flt Permitted		0.961			0.991		0.438				0.695	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	816	1819	0	0	1295	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		13				347
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	74	0	116	116	189	368	0	0	368	347
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	23.0	23.0	23.0	9.0	9.0	9.0	28.0	28.0		28.0	28.0	28.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.1	18.1		5.1	5.1	24.3	24.3			24.3	24.3
Actuated g/C Ratio		0.32	0.32		0.09	0.09	0.42	0.42			0.42	0.42
v/c Ratio		0.84	0.13		0.72	0.47	0.55	0.47			0.67	0.40
Control Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
LOS		D	A		E	B	C	B			C	A
Approach Delay		30.8			34.3			17.3			13.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 79.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 29: Valle & I-5 NB/La Novia

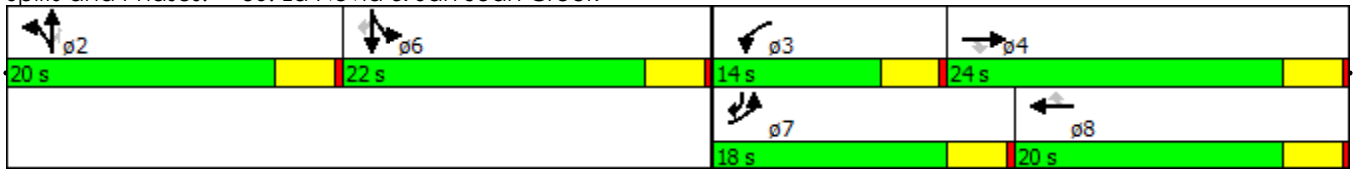


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Future Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			326
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	105	21	105	105	274	95	200	11	211	284	326
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	18.0	24.0	24.0	14.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0	18.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.8	15.1	15.1	8.7	9.7	9.7	16.1	16.1	16.1	18.1	18.1	33.9
Actuated g/C Ratio	0.16	0.21	0.21	0.12	0.14	0.14	0.22	0.22	0.22	0.25	0.25	0.47
v/c Ratio	0.65	0.27	0.05	0.49	0.42	0.63	0.24	0.48	0.03	0.47	0.61	0.35
Control Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.1			22.1			28.0			19.3	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

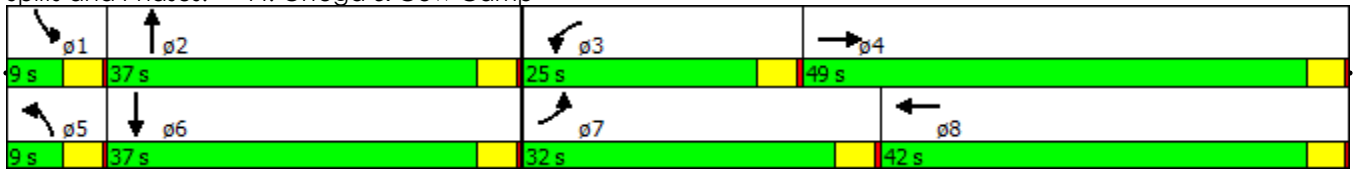


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	720	420	10	170	950	100	10	800	50	30	150	590
Future Volume (vph)	720	420	10	170	950	100	10	800	50	30	150	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3706	0	1770	3654	0	1770	3680	0	1770	3132	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3706	0	1770	3654	0	1770	3680	0	1770	3132	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			10			6			414	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	758	453	0	179	1105	0	11	895	0	32	779	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	32.0	49.0		25.0	42.0		9.0	37.0		9.0	37.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	27.0	47.8		16.3	37.1		5.0	33.1		5.0	36.6	
Actuated g/C Ratio	0.24	0.42		0.14	0.32		0.04	0.29		0.04	0.32	
v/c Ratio	0.91	0.29		0.71	0.93		0.14	0.84		0.42	0.61	
Control Delay	58.9	23.9		63.0	51.7		59.7	47.0		72.0	17.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.9	23.9		63.0	51.7		59.7	47.0		72.0	17.3	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		45.8			53.3			47.2			19.5	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 114.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 43.3 Intersection LOS: D
Intersection Capacity Utilization 85.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp



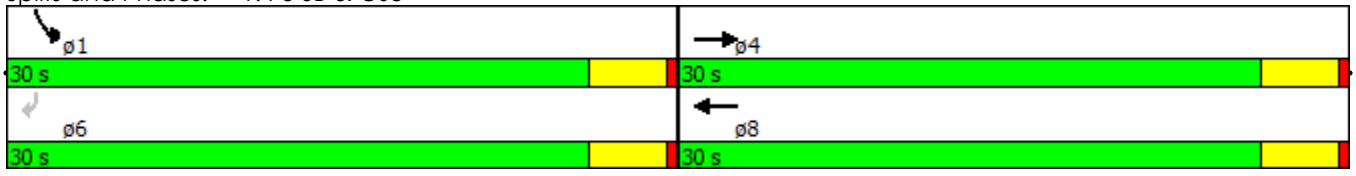
HCM Signalized Intersection Data Set 8
2035 Cumulative Without SR-241 Extension – Project Alternative 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Future Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			758						18
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1147	421	0	1484	758	0	0	0	705	0	705
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		30.0			30.0					30.0		30.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		24.1	58.2		24.1	58.2				26.1		26.1
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.45		0.45
v/c Ratio		0.54	0.27		0.70	0.48				0.46		0.56
Control Delay		13.9	0.4		16.2	1.0				12.8		14.1
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		13.9	0.4		16.2	1.0				12.8		14.1
LOS		B	A		B	A				B		B
Approach Delay		10.3			11.1							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

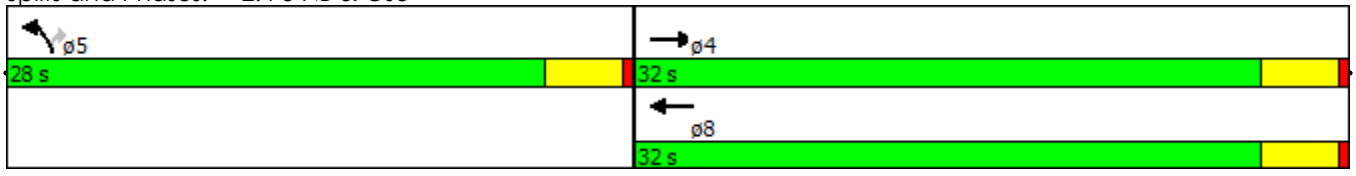


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1270	500	0	1960	1390	320	0	470	0	0	0
Future Volume (vph)	0	1270	500	0	1960	1390	320	0	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			526			1091			20			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1337	526	0	2063	1463	337	0	495	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		32.0			32.0		28.0		28.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		27.8	56.6		27.8	56.6	20.7		20.7			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.37		0.37			
v/c Ratio		0.53	0.34		0.83	0.92	0.27		0.84			
Control Delay		11.5	0.6		17.0	13.0	13.0		30.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		11.5	0.6		17.0	13.0	13.0		30.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.4			15.4							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	880	930	280	2040	0	0	0	0	30	590	70
Future Volume (vph)	0	880	930	280	2040	0	0	0	0	30	590	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			439									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	926	979	295	2147	0	0	0	0	32	621	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		21.0	40.0					20.0	20.0	20.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.4	58.5	14.0	34.4					9.7	16.0	16.0
Actuated g/C Ratio		0.28	1.00	0.24	0.59					0.17	0.27	0.27
v/c Ratio		0.65	0.62	0.70	0.72					0.06	0.64	0.15
Control Delay		21.6	1.8	29.4	10.2					18.5	22.7	4.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.6	1.8	29.4	10.2					18.5	22.7	4.4
LOS		C	A	C	B					B	C	A
Approach Delay		11.5			12.5						20.7	
Approach LOS		B			B						C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 74.4%		ICU Level of Service D	
Analysis Period (min) 15			

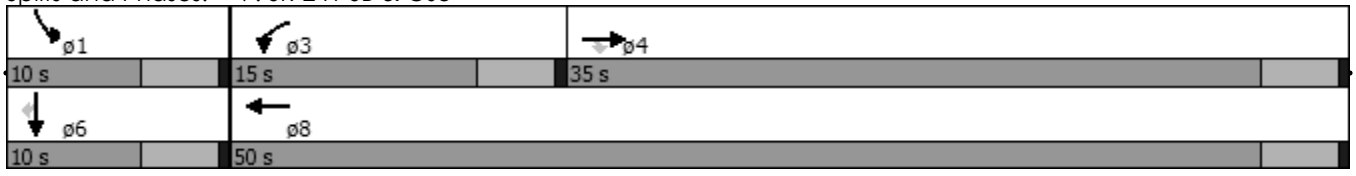
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	880	930	280	2040	0	0	0	0	30	0	70
Future Volume (vph)	0	880	930	280	2040	0	0	0	0	30	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Flt Permitted				0.950						0.950	0.996	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			447								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										10%		48%
Lane Group Flow (vph)	0	926	979	295	2147	0	0	0	0	29	39	38
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		35.0	35.0	15.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		30.2	30.2	11.0	45.2					5.8	2.4	6.0
Actuated g/C Ratio		0.51	0.51	0.19	0.76					0.10	0.04	0.10
v/c Ratio		0.36	0.96	0.90	0.55					0.18	0.27	0.16
Control Delay		9.1	29.4	57.5	3.5					27.5	5.6	2.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		9.1	29.4	57.5	3.5					27.5	5.6	2.4
LOS		A	C	E	A					C	A	A
Approach Delay		19.5			10.0						10.4	
Approach LOS		B			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 87.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

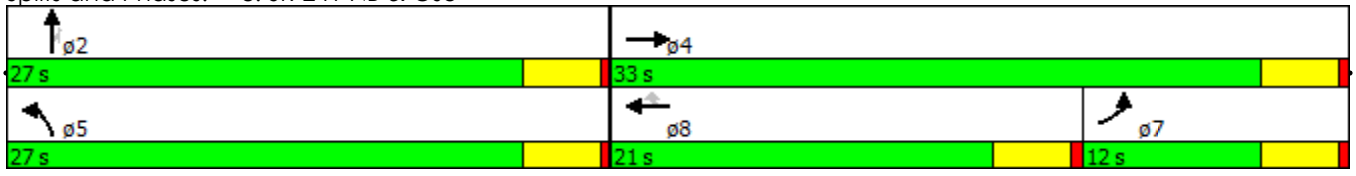


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	1020	1040	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	1020	1040	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1305	379	1074	1095	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	12.0	33.0			21.0	21.0	27.0	27.0	27.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	8.0	29.0			17.0	17.0	23.0	23.0	23.0			
Actuated g/C Ratio	0.13	0.48			0.28	0.28	0.38	0.38	0.38			
v/c Ratio	0.90	0.33			0.91	0.76	0.82	0.81	0.13			
Control Delay	51.9	10.2			31.9	27.2	23.2	22.6	3.6			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	51.9	10.2			31.9	27.2	23.2	22.6	3.6			
LOS	D	B			C	C	C	C	A			
Approach Delay		27.9			30.8			22.2				
Approach LOS		C			C			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 26.3 Intersection LOS: C
Intersection Capacity Utilization 74.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

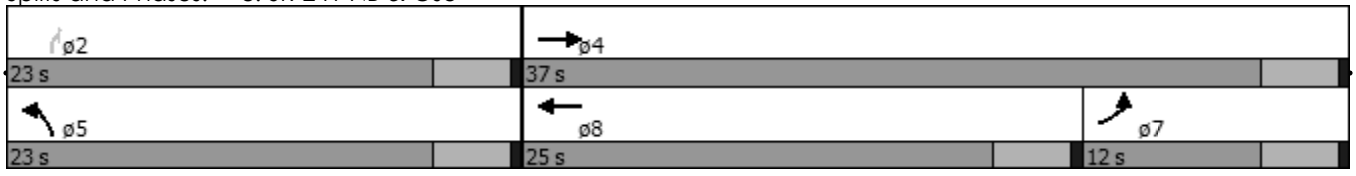


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	1020	0	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	1020	0	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					134				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1684	0	1074	0	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	12.0	37.0			25.0		23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	8.0	33.0			21.0		19.0		19.0			
Actuated g/C Ratio	0.13	0.55			0.35		0.32		0.32			
v/c Ratio	0.90	0.29			0.94		0.99		0.15			
Control Delay	51.9	7.7			29.9		47.6		4.5			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	51.9	7.7			29.9		47.6		4.5			
LOS	D	A			C		D		A			
Approach Delay		26.5			29.9							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 33.5		Intersection LOS: C	
Intersection Capacity Utilization 87.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

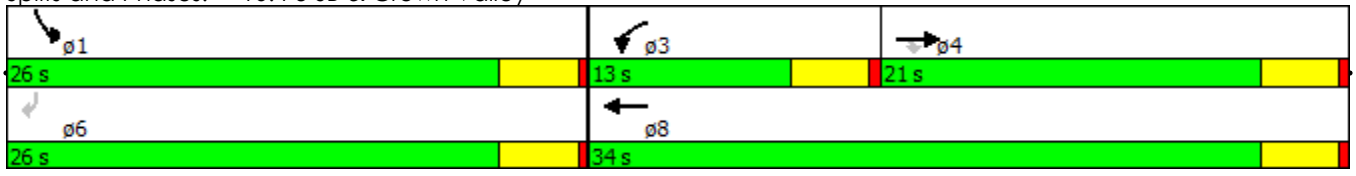


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1690	230	370	1290	0	0	0	0	1180	0	710
Future Volume (vph)	0	1690	230	370	1290	0	0	0	0	1180	0	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1779	242	389	1358	0	0	0	0	1242	0	747
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		21.0	21.0	13.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		17.0	17.0	9.0	30.0					22.0		22.0
Actuated g/C Ratio		0.28	0.28	0.15	0.50					0.37		0.37
v/c Ratio		0.83	0.40	0.76	0.53					0.68		0.69
Control Delay		24.5	5.0	35.9	11.2					18.3		18.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		24.5	5.0	35.9	11.2					18.3		18.1
LOS		C	A	D	B					B		B
Approach Delay		22.2			16.7							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

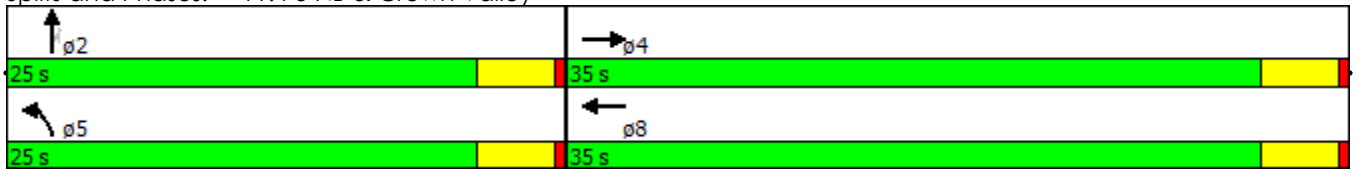


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2040	760	0	1400	1220	330	0	540	0	0	0
Future Volume (vph)	0	2040	760	0	1400	1220	330	0	540	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5910	1283	0	4585	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5910	1260	0	4585	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71	528		271	642		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			34%			50%	10%		47%			
Lane Group Flow (vph)	0	2419	528	0	2116	642	312	302	301	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.78	0.42		0.85	0.47	0.53	0.58	0.56			
Control Delay		13.7	1.0		15.1	1.2	19.6	20.2	19.6			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		13.7	1.0		15.1	1.2	19.6	20.2	19.6			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.4			11.8			19.8				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

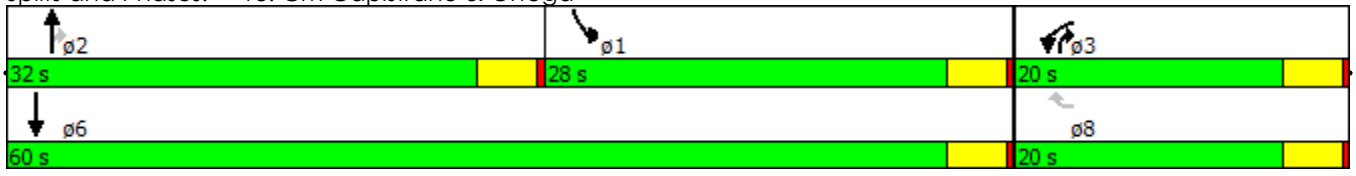


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	120	530	560	30	460	670
Future Volume (vph)	120	530	560	30	460	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1681	1474	1863	1518	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		558		23		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	558	589	32	484	705
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	32.0	20.0	28.0	60.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.4	11.2	28.1	39.5	24.1	56.1
Actuated g/C Ratio	0.15	0.15	0.37	0.52	0.32	0.74
v/c Ratio	0.47	0.80	0.85	0.04	0.86	0.51
Control Delay	35.0	13.0	36.8	3.8	42.5	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	13.0	36.8	3.8	42.5	6.2
LOS	C	B	D	A	D	A
Approach Delay	17.0		35.1			21.0
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1280	610
Future Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1280	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				423
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1200	0	11	1347	642
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	22.0		9.0	11.0		19.0	50.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.0	17.0		6.4	6.1		15.1	53.6		5.0	36.2	36.2
Actuated g/C Ratio	0.19	0.20		0.08	0.07		0.18	0.64		0.06	0.43	0.43
v/c Ratio	0.86	0.25		0.08	0.16		0.86	0.37		0.10	0.88	0.72
Control Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	30.8	12.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	47.3	1.7
Total Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	78.1	13.8
LOS	D	B		D	C		E	A		D	E	B
Approach Delay		43.3			32.1			18.2			57.3	
Approach LOS		D			C			B			E	

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 83.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 41.0		Intersection LOS: D	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			

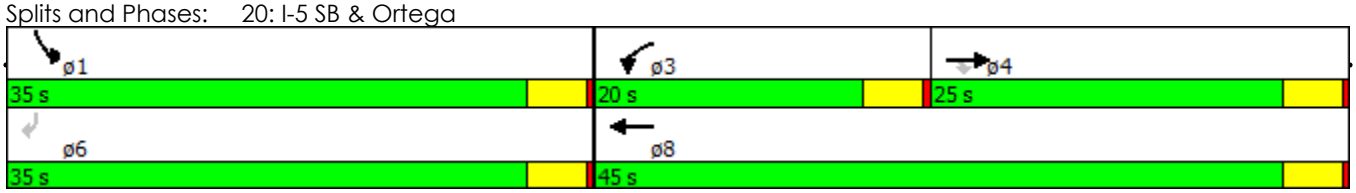
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1200	460	540	930	0	0	0	0	790	0	980
Future Volume (vph)	0	1200	460	540	930	0	0	0	0	790	0	980
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			435									172
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1263	484	568	979	0	0	0	0	832	0	1032
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.86	0.67	0.83	0.52					0.61		0.77
Control Delay		35.1	9.4	42.8	14.2					21.9		22.2
Queue Delay		1.6	0.0	0.0	0.6					0.0		0.0
Total Delay		36.6	9.4	42.8	14.8					21.9		22.2
LOS		D	A	D	B					C		C
Approach Delay		29.1			25.1							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 20: I-5 SB & Ortega

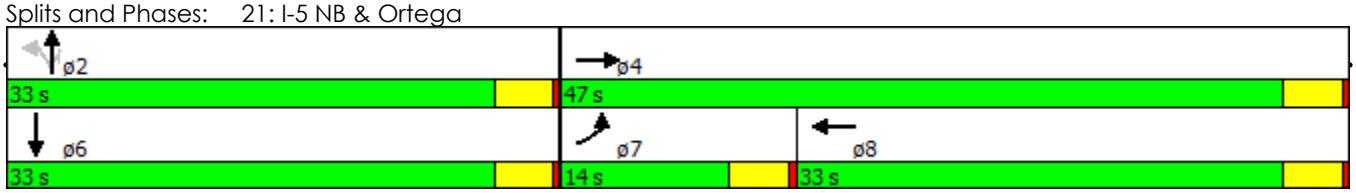


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1310	700	0	1880	10	260	10	850	0	0	10
Future Volume (vph)	10	1310	700	0	1880	10	260	10	850	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5374	1583	0	5529	0	0	1676	1583	0	1611	0
Flt Permitted	0.950							0.850				
Satd. Flow (perm)	1770	5374	1555	0	5529	0	0	1457	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		87	479		1			31	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			35%						36%			
Lane Group Flow (vph)	11	1637	479	0	1990	0	0	607	573	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	34.0	71.2		32.0			29.2	29.2		29.2	
Actuated g/C Ratio	0.09	0.48	1.00		0.45			0.41	0.41		0.41	
v/c Ratio	0.07	0.63	0.31		0.80			0.99	0.83		0.01	
Control Delay	33.3	14.1	0.5		20.7			57.4	30.8		0.0	
Queue Delay	0.0	1.4	0.0		0.0			0.0	0.0		0.0	
Total Delay	33.3	15.5	0.5		20.7			57.4	30.8		0.0	
LOS	C	B	A		C			E	C		A	
Approach Delay		12.2			20.7			44.5			0.0	
Approach LOS		B			C			D			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 82.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 21: I-5 NB & Ortega

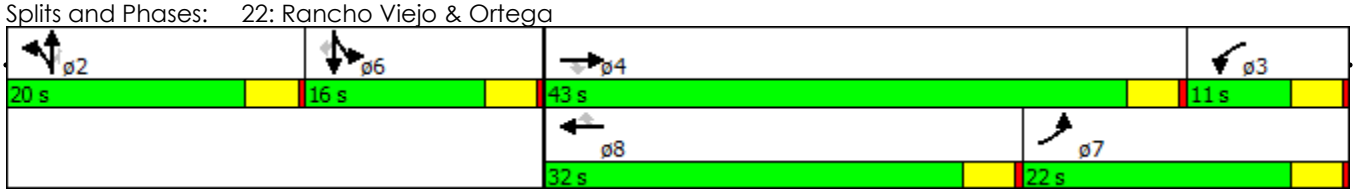


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	1190	440	80	1680	460	280	160	40	210	220	120
Future Volume (vph)	340	1190	440	80	1680	460	280	160	40	210	220	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1855	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.996	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1855	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			427			427			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	358	1253	463	84	1768	484	295	168	42	199	254	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	22.0	43.0	43.0	11.0	32.0	32.0	20.0	20.0	20.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	41.2	41.2	6.8	28.0	28.0	16.0	16.0	16.0	12.0	12.0	12.0
Actuated g/C Ratio	0.20	0.46	0.46	0.08	0.31	0.31	0.18	0.18	0.18	0.13	0.13	0.13
v/c Ratio	1.01	0.75	0.51	0.63	1.04	0.62	0.47	0.51	0.11	0.84	1.03	0.36
Control Delay	88.7	24.4	4.7	61.9	63.6	8.0	36.0	39.6	0.5	69.1	105.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.7	24.4	4.7	61.9	63.6	8.0	36.0	39.6	0.5	69.1	105.5	6.5
LOS	F	C	A	E	E	A	D	D	A	E	F	A
Approach Delay		31.1			52.0			34.2			71.4	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 44.5 Intersection LOS: D
Intersection Capacity Utilization 89.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

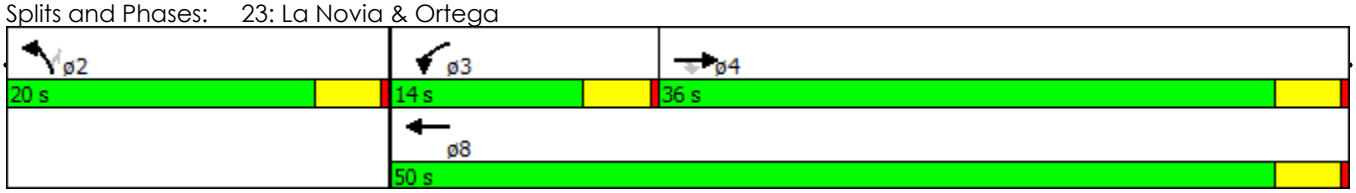


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1050	280	260	1940	340	210
Future Volume (vph)	1050	280	260	1940	340	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		279				221
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1105	295	274	2042	358	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	36.0	36.0	14.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	31.6	31.6	9.4	45.1	16.0	16.0
Actuated g/C Ratio	0.46	0.46	0.14	0.65	0.23	0.23
v/c Ratio	0.70	0.35	0.58	0.90	0.45	0.42
Control Delay	17.9	3.3	33.6	17.5	25.2	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	3.3	33.6	17.5	25.2	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.8			19.4	18.1	
Approach LOS	B			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 73.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

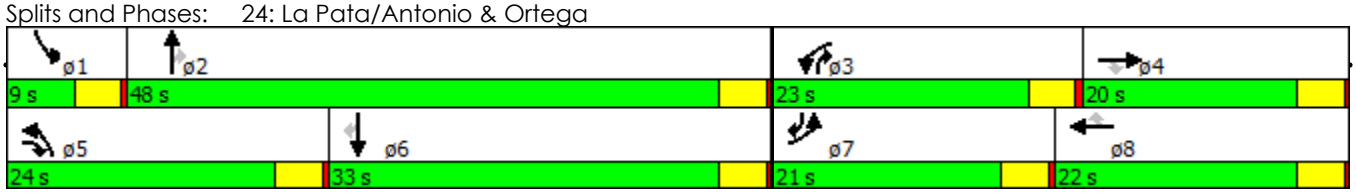


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	150	600	330	420	20	570	1380	220	10	1480	920
Future Volume (vph)	460	150	600	330	420	20	570	1380	220	10	1480	920
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			142			232			98
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	484	158	632	347	442	21	600	1453	232	11	1558	968
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	21.0	20.0	24.0	23.0	22.0	22.0	24.0	48.0	23.0	9.0	33.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.5	13.6	33.6	19.0	16.0	16.0	20.0	51.3	70.3	5.0	29.0	45.5
Actuated g/C Ratio	0.17	0.14	0.34	0.19	0.16	0.16	0.20	0.53	0.72	0.05	0.30	0.47
v/c Ratio	0.81	0.31	1.11	1.01	0.74	0.06	0.83	0.50	0.20	0.12	0.94	0.67
Control Delay	51.1	39.2	99.9	91.7	46.8	0.3	48.7	16.4	1.1	48.5	45.9	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	39.2	99.9	91.7	46.8	0.3	48.7	16.4	1.1	48.5	45.9	18.6
LOS	D	D	F	F	D	A	D	B	A	D	D	B
Approach Delay		73.8			64.9			23.3			35.5	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 97.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 42.0 Intersection LOS: D
Intersection Capacity Utilization 96.0% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

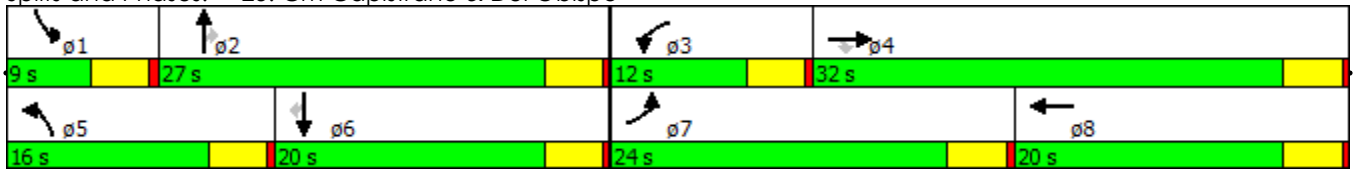


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Future Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340		5				177			409
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	421	505	432	158	526	0	484	505	147	32	326	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	32.0	32.0	12.0	20.0		16.0	27.0	27.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.9	27.3	27.3	7.7	15.1		12.0	28.4	28.4	5.0	16.0	16.0
Actuated g/C Ratio	0.25	0.35	0.35	0.10	0.19		0.15	0.36	0.36	0.06	0.20	0.20
v/c Ratio	0.94	0.41	0.58	0.47	0.78		0.93	0.75	0.22	0.29	0.86	0.75
Control Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
LOS	E	C	A	D	D		E	C	A	D	E	B
Approach Delay		29.8			39.3			41.2			31.4	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 35.0		Intersection LOS: C	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	730	540	590	580	580	550
Future Volume (vph)	730	540	590	580	580	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3355	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3355	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	39	333		18		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		26%				
Lane Group Flow (vph)	916	420	621	611	611	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	0.89	0.65	0.62	0.67	0.82	0.29
Control Delay	32.0	9.8	21.9	10.5	33.9	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	9.8	21.9	10.5	33.9	7.2
LOS	C	A	C	B	C	A
Approach Delay	25.0		16.3			20.9
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	630	300	880	50	560	720
Future Volume (vph)	630	300	880	50	560	720
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		316		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	663	316	926	53	589	758
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	18.0		25.0		17.0	42.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	13.7	59.7	21.3	59.7	12.7	38.0
Actuated g/C Ratio	0.23	1.00	0.36	1.00	0.21	0.64
v/c Ratio	0.84	0.20	0.73	0.03	0.81	0.34
Control Delay	33.9	0.3	21.1	0.0	32.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	0.3	21.1	0.0	32.9	5.6
LOS	C	A	C	A	C	A
Approach Delay	23.0		20.0			17.5
Approach LOS	C		B			B

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 68.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	880	390	350
Future Volume (vph)	520	630	240	880	390	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.655	0.950	
Satd. Flow (perm)	1863	1493	0	2318	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				295
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1179	411	368
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.3	32.3		32.3	17.1	17.1
Actuated g/C Ratio	0.56	0.56		0.56	0.30	0.30
v/c Ratio	0.52	0.59		0.91	0.78	0.54
Control Delay	9.8	3.0		23.1	32.6	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	9.8	3.0		23.1	32.6	8.0
LOS	A	A		C	C	A
Approach Delay	6.1			23.1	21.0	
Approach LOS	A			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 90.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Future Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				526
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	463	84	0	326	158	105	232	0	0	369	526
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	22.0	22.0	22.0	16.0	16.0	16.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.3	17.3		11.9	11.9	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.29	0.29		0.20	0.20	0.30	0.30			0.30	0.30
v/c Ratio		0.89	0.16		0.87	0.36	0.54	0.41			0.71	0.62
Control Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
LOS		D	A		D	A	C	B			C	A
Approach Delay		36.6			36.1			22.6			14.8	
Approach LOS		D			D			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 25.8 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

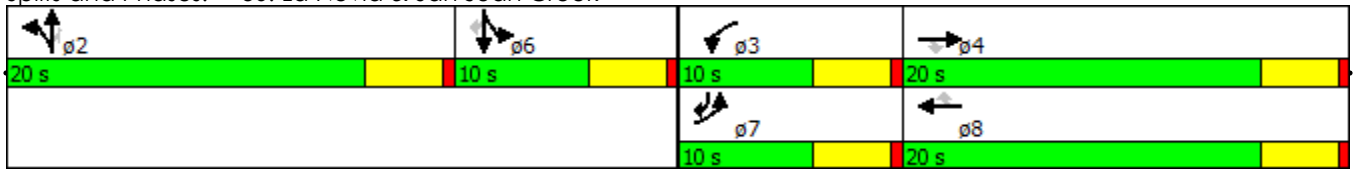
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Future Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			284			164			337
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	126	95	53	221	284	137	263	42	179	168	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.0	16.0	5.9	11.8	11.8	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.11	0.21	0.21	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.88	0.24	0.17	0.28	0.57	0.53	0.27	0.49	0.08	0.94	0.84	0.49
Control Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
LOS	E	B	A	C	C	A	B	C	A	F	E	A
Approach Delay		37.6			16.3			18.3			40.2	
Approach LOS		D			B			B			D	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 30: La Novia & San Juan Creek

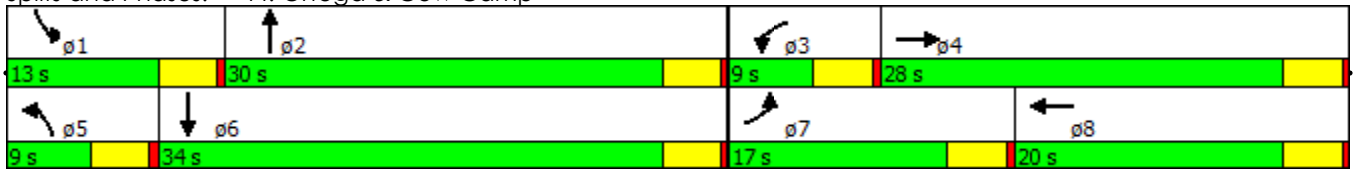


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	480	870	10	40	280	20	10	90	180	80	680	570
Future Volume (vph)	480	870	10	40	280	20	10	90	180	80	680	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3678	0	1770	3261	0	1770	3407	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3678	0	1770	3261	0	1770	3407	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			189			302	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	505	927	0	42	316	0	11	284	0	84	1316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	17.0	28.0		9.0	20.0		9.0	30.0		13.0	34.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	12.8	24.8		5.1	13.0		5.1	27.3		8.0	35.2	
Actuated g/C Ratio	0.17	0.33		0.07	0.17		0.07	0.36		0.11	0.47	
v/c Ratio	0.83	0.75		0.35	0.49		0.09	0.22		0.45	0.75	
Control Delay	45.2	28.5		44.4	30.1		37.3	7.5		41.0	16.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	45.2	28.5		44.4	30.1		37.3	7.5		41.0	16.8	
LOS	D	C		D	C		D	A		D	B	
Approach Delay		34.4			31.8			8.6			18.3	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 74.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.5		Intersection LOS: C	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp

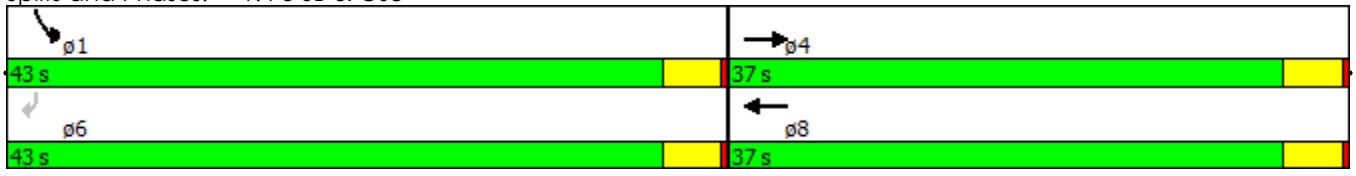


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1710	520	0	1460	660	0	0	0	1320	0	400
Future Volume (vph)	0	1710	520	0	1460	660	0	0	0	1320	0	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			411			695						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1800	547	0	1537	695	0	0	0	1389	0	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		37.0			37.0					43.0		43.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		32.9	79.9		32.9	79.9				39.0		39.0
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.49		0.49
v/c Ratio		0.86	0.36		0.73	0.44				0.83		0.31
Control Delay		26.8	0.6		22.4	0.9				23.1		12.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.8	0.6		22.4	0.9				23.1		12.7
LOS		C	A		C	A				C		B
Approach Delay		20.7			15.7							
Approach LOS		C			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 18.9		Intersection LOS: B	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

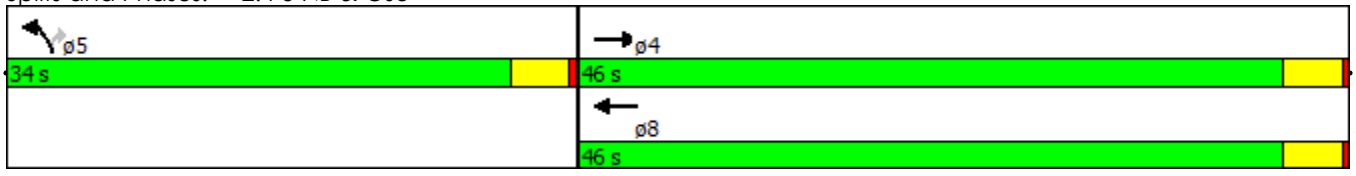


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2600	390	0	1510	720	590	0	610	0	0	0
Future Volume (vph)	0	2600	390	0	1510	720	590	0	610	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			181			758			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2737	411	0	1589	758	621	0	642	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		46.0			46.0		34.0		34.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		42.0	80.0		42.0	80.0	30.0		30.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.38		0.38			
v/c Ratio		1.03	0.27		0.60	0.48	0.48		1.07			
Control Delay		44.7	0.4		14.3	1.0	20.6		82.3			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.7	0.4		14.3	1.0	20.6		82.3			
LOS		D	A		B	A	C		F			
Approach Delay		38.9			10.0							
Approach LOS		D			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 31.3 Intersection LOS: C
Intersection Capacity Utilization 94.7% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

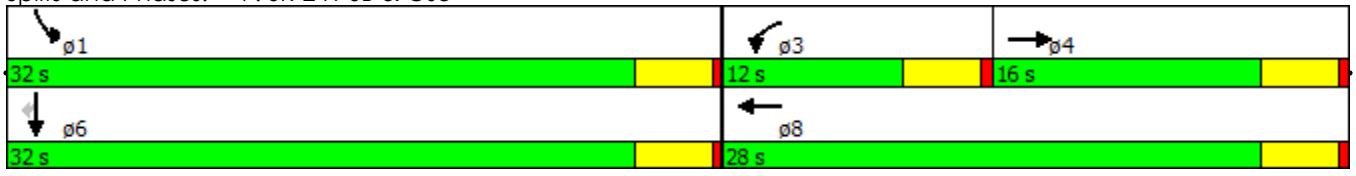


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	680	1160	100	1460	0	0	0	0	330	1080	320
Future Volume (vph)	0	680	1160	100	1460	0	0	0	0	330	1080	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			341									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	716	1221	105	1537	0	0	0	0	347	1137	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		16.0		12.0	28.0					32.0	32.0	32.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		13.9	59.3	7.4	23.3					28.0	28.0	28.0
Actuated g/C Ratio		0.23	1.00	0.12	0.39					0.47	0.47	0.47
v/c Ratio		0.60	0.77	0.48	0.77					0.21	0.68	0.42
Control Delay		23.7	3.7	31.9	18.8					9.8	14.9	9.5
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		23.7	3.7	31.9	18.8					9.8	14.9	9.5
LOS		C	A	C	B					A	B	A
Approach Delay		11.1			19.6						13.0	
Approach LOS		B			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 64.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

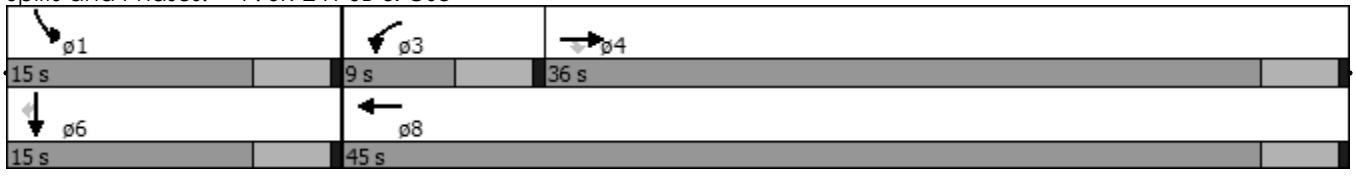


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	680	1160	100	1460	0	0	0	0	330	0	320
Future Volume (vph)	0	680	1160	100	1460	0	0	0	0	330	0	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Flt Permitted				0.950						0.950	0.977	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			784								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										31%		36%
Lane Group Flow (vph)	0	716	1221	105	1537	0	0	0	0	239	229	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		36.0	36.0	9.0	45.0					15.0	15.0	15.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		32.1	32.1	5.0	39.1					11.0	11.0	11.0
Actuated g/C Ratio		0.55	0.55	0.09	0.67					0.19	0.19	0.19
v/c Ratio		0.25	1.00	0.69	0.45					0.75	0.63	0.60
Control Delay		7.5	33.6	53.5	4.9					40.9	23.4	21.7
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.5	33.6	53.5	4.9					40.9	23.4	21.7
LOS		A	C	D	A					D	C	C
Approach Delay		23.9			8.0						29.0	
Approach LOS		C			A						C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 18.6 Intersection LOS: B
Intersection Capacity Utilization 99.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

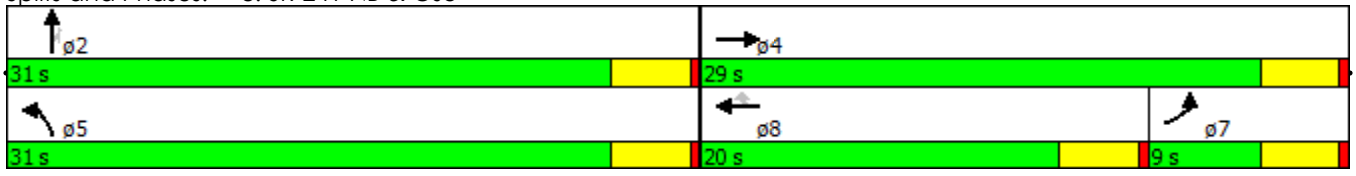


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	910	610	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	910	610	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	600	63	958	642	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.1	20.6			17.1	17.1	27.1	27.1	27.1			
Actuated g/C Ratio	0.09	0.37			0.31	0.31	0.49	0.49	0.49			
v/c Ratio	0.13	0.72			0.38	0.12	0.57	0.37	0.30			
Control Delay	25.9	18.5			16.8	3.2	12.6	10.5	7.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.9	18.5			16.8	3.2	12.6	10.5	7.3			
LOS	C	B			B	A	B	B	A			
Approach Delay		18.8			15.5			11.2				
Approach LOS		B			B			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 64.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

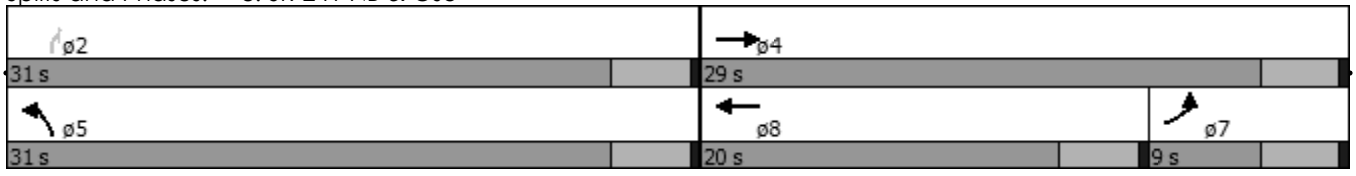


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	910	0	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	910	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					29				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	663	0	958	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.2	20.6			17.0		27.1		27.1			
Actuated g/C Ratio	0.09	0.37			0.31		0.49		0.49			
v/c Ratio	0.13	0.72			0.43		0.57		0.30			
Control Delay	25.8	18.5			16.5		12.6		7.3			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.8	18.5			16.5		12.6		7.3			
LOS	C	B			B		B		A			
Approach Delay		18.8			16.5							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 99.8%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

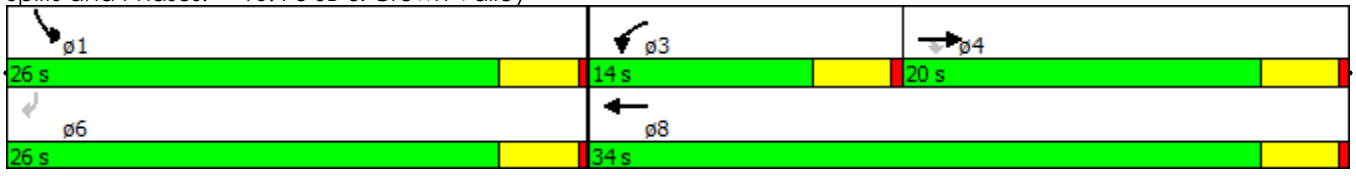


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1820	320	490	1390	0	0	0	0	1390	0	1060
Future Volume (vph)	0	1820	320	490	1390	0	0	0	0	1390	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1916	337	516	1463	0	0	0	0	1463	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		0.95	0.52	0.90	0.58					0.80		1.03
Control Delay		34.7	5.7	47.2	11.7					21.2		57.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.7	5.7	47.2	11.7					21.2		57.1
LOS		C	A	D	B					C		E
Approach Delay		30.4			20.9							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 71.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2590	510	0	1670	1490	240	0	440	0	0	0
Future Volume (vph)	0	2590	510	0	1670	1490	240	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4585	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4585	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10	396		335	784		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2780	483	0	2542	784	228	247	241	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.77	0.38		0.88	0.58	0.51	0.61	0.58			
Control Delay		10.8	0.9		13.8	1.8	23.4	25.5	24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.8	0.9		13.8	1.8	23.4	25.5	24.2			
LOS		B	A		B	A	C	C	C			
Approach Delay		9.3			10.9			24.4				
Approach LOS		A			B			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 65.3% ICU Level of Service C
Analysis Period (min) 15

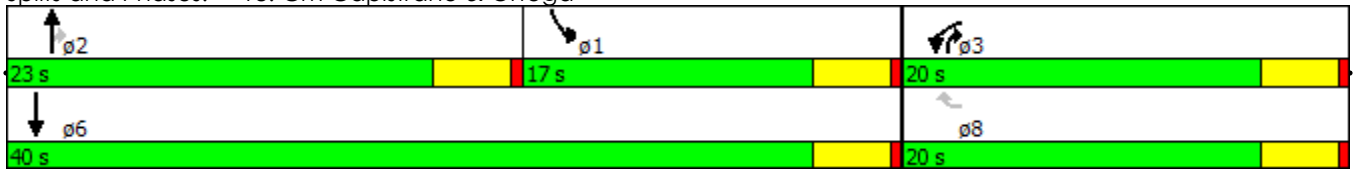
Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	540	100	380	610
Future Volume (vph)	160	490	540	100	380	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		493		73		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	568	105	400	642
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	23.0	20.0	17.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	19.1	29.6	13.0	36.1
Actuated g/C Ratio	0.19	0.19	0.35	0.54	0.24	0.66
v/c Ratio	0.49	0.76	0.87	0.12	0.95	0.52
Control Delay	24.5	10.8	35.8	2.2	58.1	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	10.8	35.8	2.2	58.1	7.4
LOS	C	B	D	A	E	A
Approach Delay	14.2		30.5			26.9
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	660	10	150	10	10	10	160	1280	10	10	1000	820
Future Volume (vph)	660	10	150	10	10	10	160	1280	10	10	1000	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			1				595
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	695	169	0	11	22	0	168	1358	0	11	1053	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		19.0	68.0		9.0	58.0	58.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.8	27.3		8.0	6.2		15.1	71.6		5.0	54.3	54.3
Actuated g/C Ratio	0.23	0.24		0.07	0.05		0.13	0.63		0.04	0.48	0.48
v/c Ratio	0.89	0.35		0.09	0.21		0.71	0.42		0.14	0.62	0.84
Control Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	25.0	17.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	26.1	9.0
Total Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	51.2	26.2
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		48.1			43.5			18.2			40.0	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 113.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 34.0		Intersection LOS: C	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

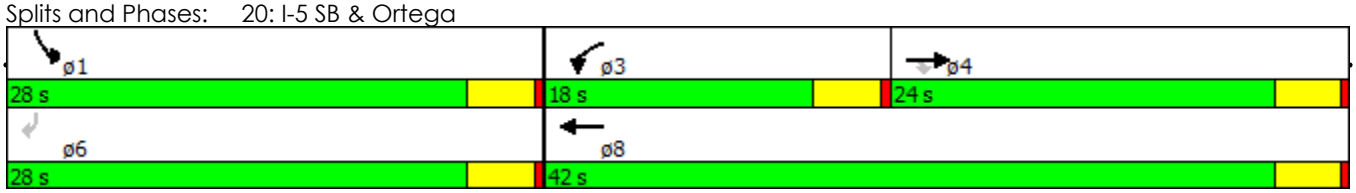
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1450	480	610	810	0	0	0	0	1000	0	1020
Future Volume (vph)	0	1450	480	610	810	0	0	0	0	1000	0	1020
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			443									275
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1526	505	642	853	0	0	0	0	1053	0	1074
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		24.0	24.0	18.0	42.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		20.0	20.0	14.0	38.0					24.0		24.0
Actuated g/C Ratio		0.29	0.29	0.20	0.54					0.34		0.34
v/c Ratio		0.96	0.67	0.92	0.42					0.88		0.85
Control Delay		40.2	9.0	48.1	10.3					31.9		23.7
Queue Delay		3.0	0.0	0.0	0.0					0.0		0.0
Total Delay		43.2	9.0	48.1	10.3					31.9		23.7
LOS		D	A	D	B					C		C
Approach Delay		34.7			26.5							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 29.9		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 20: I-5 SB & Ortega

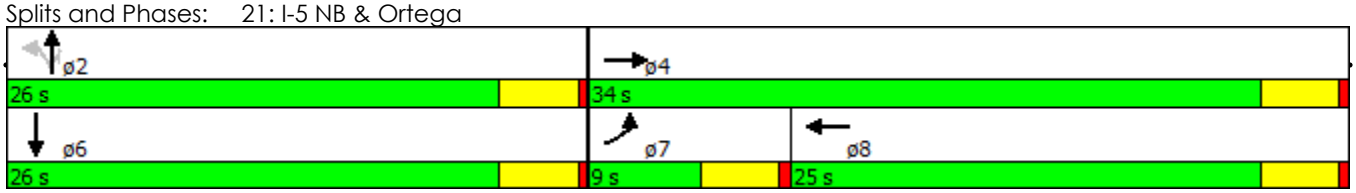


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1760	690	0	1790	10	210	10	670	0	0	10
Future Volume (vph)	10	1760	690	0	1790	10	210	10	670	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5463	1583	0	5529	0	0	1680	1583	0	1611	0
Flt Permitted	0.950							0.847				
Satd. Flow (perm)	1770	5463	1555	0	5529	0	0	1456	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35	574		2			6	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			21%						35%			
Lane Group Flow (vph)	11	2005	574	0	1895	0	0	479	458	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	29.6	59.6		27.8			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.37	0.37		0.37	
v/c Ratio	0.07	0.73	0.37		0.73			0.89	0.71		0.02	
Control Delay	26.7	13.6	0.7		16.8			39.7	20.7		0.0	
Queue Delay	0.0	48.0	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.7	61.7	0.7		16.8			39.7	20.7		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		48.0			16.8			30.4			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 34.0		Intersection LOS: C	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 21: I-5 NB & Ortega

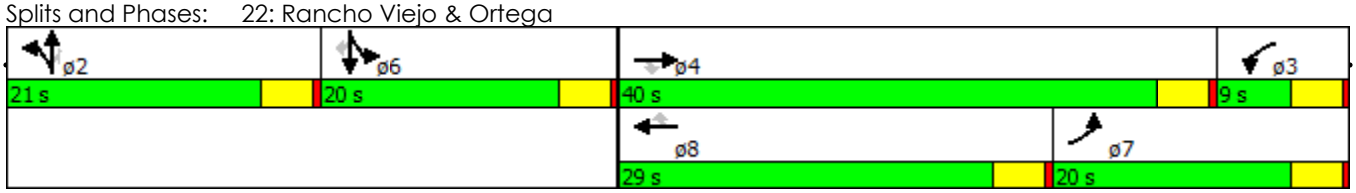


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	1290	380	70	1050	270	440	150	50	380	150	250
Future Volume (vph)	240	1290	380	70	1050	270	440	150	50	380	150	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			322			284			158			254
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	253	1358	400	74	1105	284	463	158	53	276	282	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	40.0	40.0	9.0	29.0	29.0	21.0	21.0	21.0	20.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.2	36.1	36.1	5.0	23.9	23.9	17.0	17.0	17.0	16.0	16.0	16.0
Actuated g/C Ratio	0.17	0.41	0.41	0.06	0.27	0.27	0.19	0.19	0.19	0.18	0.18	0.18
v/c Ratio	0.83	0.91	0.51	0.74	0.74	0.45	0.68	0.44	0.13	0.86	0.85	0.53
Control Delay	59.7	35.6	6.9	82.9	33.0	5.8	39.2	36.6	0.6	62.1	60.8	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	35.6	6.9	82.9	33.0	5.8	39.2	36.6	0.6	62.1	60.8	9.4
LOS	E	D	A	F	C	A	D	D	A	E	E	A
Approach Delay		33.0			30.2			35.5			44.8	
Approach LOS		C			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 34.4 Intersection LOS: C
Intersection Capacity Utilization 81.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

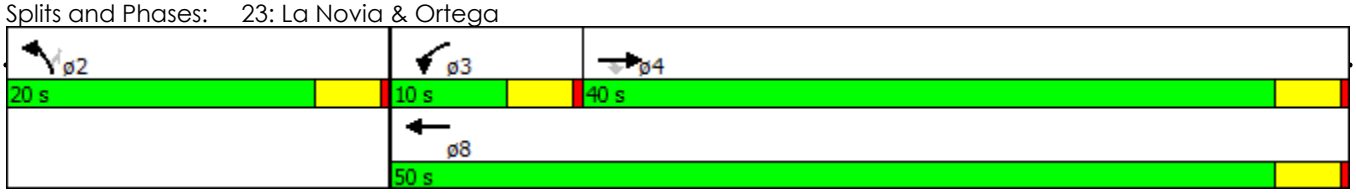


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1540	300	240	1170	260	210
Future Volume (vph)	1540	300	240	1170	260	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		228				167
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1621	316	253	1232	274	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	40.0	40.0	10.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	35.8	35.8	6.0	45.8	16.0	16.0
Actuated g/C Ratio	0.51	0.51	0.09	0.66	0.23	0.23
v/c Ratio	0.91	0.35	0.86	0.54	0.35	0.46
Control Delay	25.1	4.2	60.5	7.5	24.1	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	4.2	60.5	7.5	24.1	10.7
LOS	C	A	E	A	C	B
Approach Delay	21.7			16.5	18.1	
Approach LOS	C			B	B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 69.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 72.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 23: La Novia & Ortega

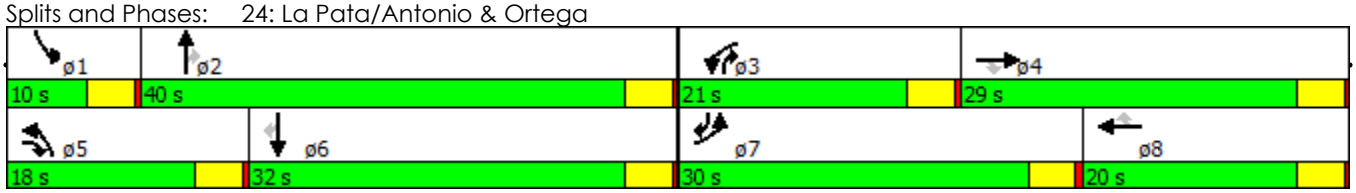


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	790	640	240	220	210	10	400	1110	350	40	1350	700
Future Volume (vph)	790	640	240	220	210	10	400	1110	350	40	1350	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			185			98			165
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	832	674	253	232	221	11	421	1168	368	42	1421	737
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	30.0	29.0	18.0	21.0	20.0	20.0	18.0	40.0	21.0	10.0	32.0	30.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	25.5	22.9	36.6	15.6	13.1	13.1	13.7	40.0	55.7	5.9	28.1	53.5
Actuated g/C Ratio	0.26	0.24	0.38	0.16	0.14	0.14	0.14	0.41	0.58	0.06	0.29	0.55
v/c Ratio	0.89	0.78	0.41	0.81	0.45	0.03	0.84	0.50	0.40	0.39	0.87	0.42
Control Delay	47.7	41.5	17.2	61.7	41.2	0.2	56.6	23.2	9.1	55.8	40.2	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	41.5	17.2	61.7	41.2	0.2	56.6	23.2	9.1	55.8	40.2	9.0
LOS	D	D	B	E	D	A	E	C	A	E	D	A
Approach Delay		41.0			50.5			27.7			30.1	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 96.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 33.8 Intersection LOS: C
Intersection Capacity Utilization 82.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

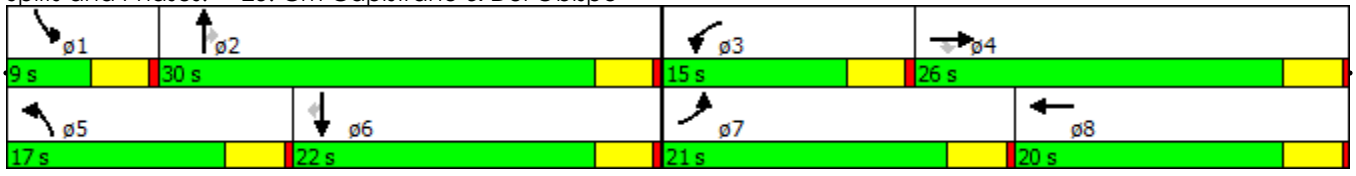


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Future Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3466	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3466	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			304		13				198			283
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	568	442	379	652	0	579	537	242	63	389	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	21.0	26.0	26.0	15.0	20.0		17.0	30.0	30.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	17.0	22.1	22.1	10.9	16.0		13.0	27.8	27.8	5.0	18.0	18.0
Actuated g/C Ratio	0.21	0.28	0.28	0.14	0.20		0.16	0.35	0.35	0.06	0.22	0.22
v/c Ratio	1.01	0.58	0.69	0.81	0.93		1.04	0.83	0.37	0.57	0.93	0.68
Control Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
LOS	F	C	B	D	D		F	D	A	E	E	B
Approach Delay		38.7			51.1			52.1			40.2	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 45.7		Intersection LOS: D	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	640	540	500	680	730
Future Volume (vph)	840	640	540	500	680	730
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	343		9		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1073	485	568	526	716	768
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	1.04	0.74	0.57	0.58	0.96	0.38
Control Delay	60.9	14.3	21.0	8.7	51.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	14.3	21.0	8.7	51.5	7.9
LOS	E	B	C	A	D	A
Approach Delay	46.4		15.1			28.9
Approach LOS	D		B			C

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 31.8		Intersection LOS: C	
Intersection Capacity Utilization 75.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	360	690	50	600	970
Future Volume (vph)	840	360	690	50	600	970
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		379		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	884	379	726	53	632	1021
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	22.0		20.0		18.0	38.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	59.5	16.4	59.5	13.6	34.0
Actuated g/C Ratio	0.29	1.00	0.28	1.00	0.23	0.57
v/c Ratio	0.88	0.24	0.74	0.03	0.81	0.50
Control Delay	31.9	0.4	25.8	0.0	31.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	0.4	25.8	0.0	31.6	8.9
LOS	C	A	C	A	C	A
Approach Delay	22.4		24.1			17.6
Approach LOS	C		C			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15

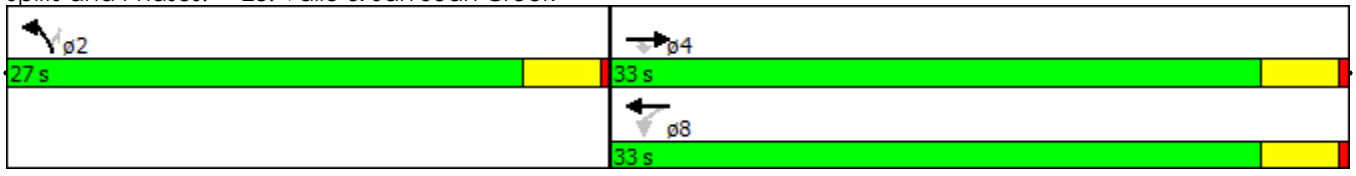
Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	600	580	110	920	570	240
Future Volume (vph)	600	580	110	920	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3522	1770	1583
Flt Permitted				0.685	0.950	
Satd. Flow (perm)	1863	1493	0	2424	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				176
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	632	611	0	1084	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	33.0	33.0	33.0	33.0	27.0	27.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.4	28.4		28.4	23.0	23.0
Actuated g/C Ratio	0.48	0.48		0.48	0.39	0.39
v/c Ratio	0.71	0.59		0.94	0.87	0.35
Control Delay	17.7	3.7		31.9	34.3	6.2
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.7	3.7		31.9	34.3	6.2
LOS	B	A		C	C	A
Approach Delay	10.8			31.9	26.0	
Approach LOS	B			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 101.8% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

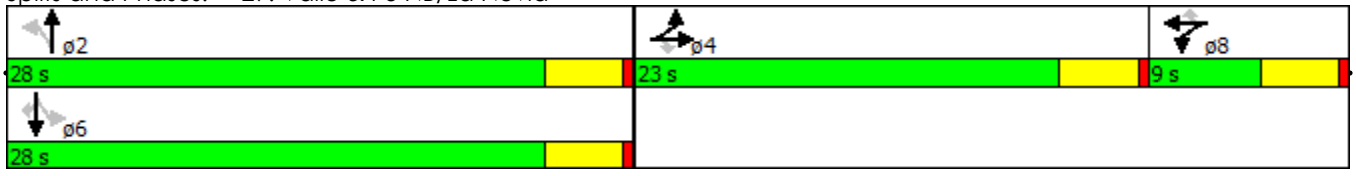


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Future Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1831	1583
Flt Permitted		0.961			0.991		0.438				0.695	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	816	1819	0	0	1295	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		13				347
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	74	0	116	116	189	368	0	0	368	347
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	23.0	23.0	23.0	9.0	9.0	9.0	28.0	28.0		28.0	28.0	28.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.1	18.1		5.1	5.1	24.3	24.3			24.3	24.3
Actuated g/C Ratio		0.32	0.32		0.09	0.09	0.42	0.42			0.42	0.42
v/c Ratio		0.84	0.13		0.72	0.47	0.55	0.47			0.67	0.40
Control Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
LOS		D	A		E	B	C	B			C	A
Approach Delay		30.8			34.3			17.3			13.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 79.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 29: Valle & I-5 NB/La Novia

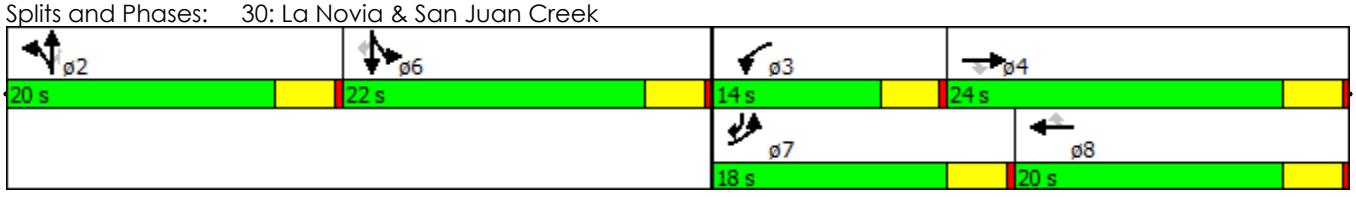


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Future Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			326
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	105	21	105	105	274	95	200	11	211	284	326
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	18.0	24.0	24.0	14.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0	18.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.8	15.1	15.1	8.7	9.7	9.7	16.1	16.1	16.1	18.1	18.1	33.9
Actuated g/C Ratio	0.16	0.21	0.21	0.12	0.14	0.14	0.22	0.22	0.22	0.25	0.25	0.47
v/c Ratio	0.65	0.27	0.05	0.49	0.42	0.63	0.24	0.48	0.03	0.47	0.61	0.35
Control Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.1			22.1			28.0			19.3	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

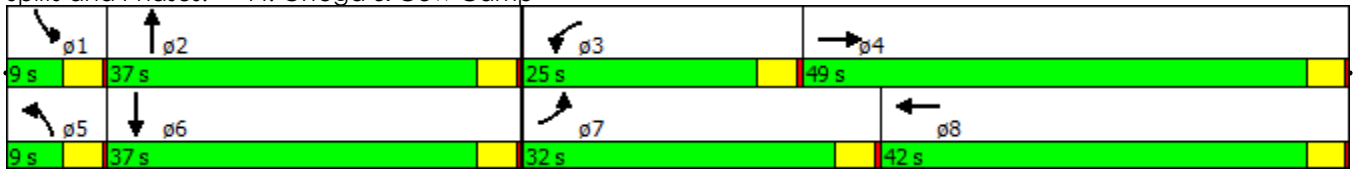


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	720	420	10	170	950	100	10	800	50	30	150	590
Future Volume (vph)	720	420	10	170	950	100	10	800	50	30	150	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3706	0	1770	3654	0	1770	3680	0	1770	3132	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3706	0	1770	3654	0	1770	3680	0	1770	3132	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			10			6			414	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	758	453	0	179	1105	0	11	895	0	32	779	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	32.0	49.0		25.0	42.0		9.0	37.0		9.0	37.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	27.0	47.8		16.3	37.1		5.0	33.1		5.0	36.6	
Actuated g/C Ratio	0.24	0.42		0.14	0.32		0.04	0.29		0.04	0.32	
v/c Ratio	0.91	0.29		0.71	0.93		0.14	0.84		0.42	0.61	
Control Delay	58.9	23.9		63.0	51.7		59.7	47.0		72.0	17.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.9	23.9		63.0	51.7		59.7	47.0		72.0	17.3	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		45.8			53.3			47.2			19.5	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 114.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 43.3 Intersection LOS: D
Intersection Capacity Utilization 85.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp



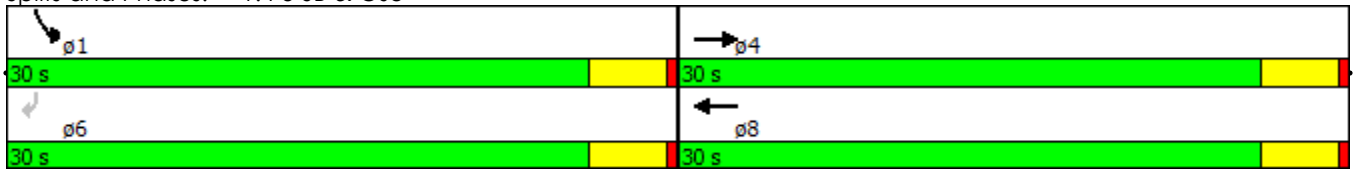
HCM Signalized Intersection Data Set 9
2035 Cumulative Without SR-241 Extension – Project Alternative 3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Future Volume (vph)	0	1090	400	0	1410	720	0	0	0	670	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			758						18
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1147	421	0	1484	758	0	0	0	705	0	705
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		30.0			30.0					30.0		30.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		24.1	58.2		24.1	58.2				26.1		26.1
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.45		0.45
v/c Ratio		0.54	0.27		0.70	0.48				0.46		0.56
Control Delay		13.9	0.4		16.2	1.0				12.8		14.1
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		13.9	0.4		16.2	1.0				12.8		14.1
LOS		B	A		B	A				B		B
Approach Delay		10.3			11.1							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 57.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

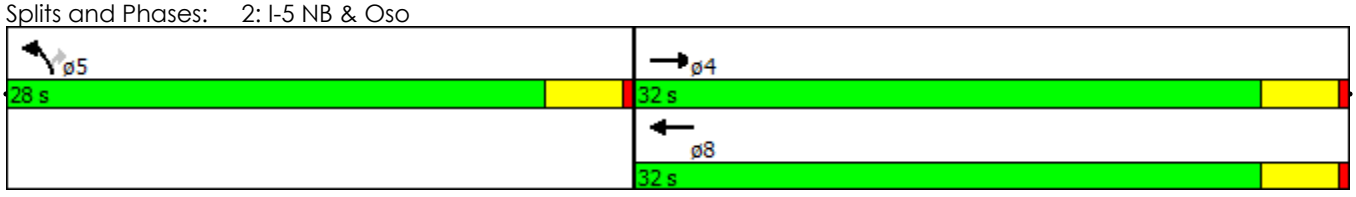


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1270	500	0	1960	1390	320	0	470	0	0	0
Future Volume (vph)	0	1270	500	0	1960	1390	320	0	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			526			1091			20			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1337	526	0	2063	1463	337	0	495	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		32.0			32.0		28.0		28.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		27.8	56.6		27.8	56.6	20.7		20.7			
Actuated g/C Ratio		0.49	1.00		0.49	1.00	0.37		0.37			
v/c Ratio		0.53	0.34		0.83	0.92	0.27		0.84			
Control Delay		11.5	0.6		17.0	13.0	13.0		30.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		11.5	0.6		17.0	13.0	13.0		30.2			
LOS		B	A		B	B	B		C			
Approach Delay		8.4			15.4							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	880	930	280	2050	0	0	0	0	30	590	70
Future Volume (vph)	0	880	930	280	2050	0	0	0	0	30	590	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			439									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	926	979	295	2158	0	0	0	0	32	621	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		19.0		21.0	40.0					20.0	20.0	20.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.4	58.5	14.0	34.5					9.7	16.0	16.0
Actuated g/C Ratio		0.28	1.00	0.24	0.59					0.17	0.27	0.27
v/c Ratio		0.65	0.62	0.70	0.72					0.06	0.64	0.15
Control Delay		21.6	1.8	29.4	10.2					18.5	22.7	4.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		21.6	1.8	29.4	10.2					18.5	22.7	4.4
LOS		C	A	C	B					B	C	A
Approach Delay		11.4			12.5						20.7	
Approach LOS		B			B						C	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 74.7%		ICU Level of Service D	
Analysis Period (min) 15			

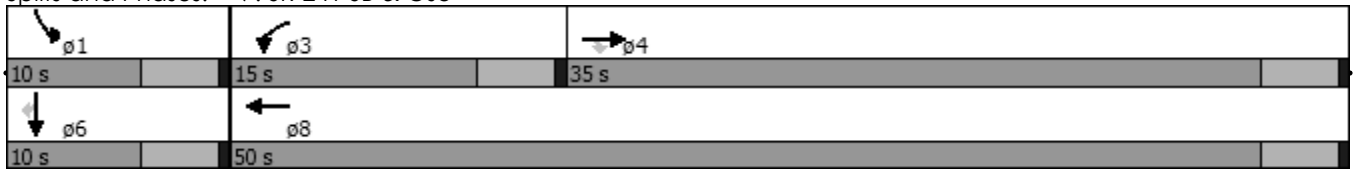
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	880	930	280	2050	0	0	0	0	30	0	70
Future Volume (vph)	0	880	930	280	2050	0	0	0	0	30	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Flt Permitted				0.950						0.950	0.996	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1455	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			447								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										10%		48%
Lane Group Flow (vph)	0	926	979	295	2158	0	0	0	0	29	39	38
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		35.0	35.0	15.0	50.0					10.0	10.0	10.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		30.2	30.2	11.0	45.2					5.8	2.4	6.0
Actuated g/C Ratio		0.51	0.51	0.19	0.76					0.10	0.04	0.10
v/c Ratio		0.36	0.96	0.90	0.56					0.18	0.27	0.16
Control Delay		9.1	29.4	57.5	3.5					27.5	5.6	2.4
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		9.1	29.4	57.5	3.5					27.5	5.6	2.4
LOS		A	C	E	A					C	A	A
Approach Delay		19.5			10.0						10.4	
Approach LOS		B			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 14.1		Intersection LOS: B	
Intersection Capacity Utilization 87.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

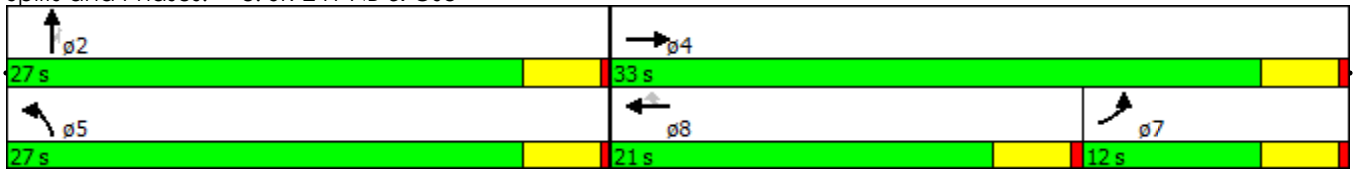


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	1030	1050	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	1030	1050	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1305	379	1084	1105	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	12.0	33.0			21.0	21.0	27.0	27.0	27.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	8.0	29.0			17.0	17.0	23.0	23.0	23.0			
Actuated g/C Ratio	0.13	0.48			0.28	0.28	0.38	0.38	0.38			
v/c Ratio	0.90	0.33			0.91	0.76	0.82	0.81	0.13			
Control Delay	51.9	10.2			31.9	27.2	23.6	22.9	3.6			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	51.9	10.2			31.9	27.2	23.6	22.9	3.6			
LOS	D	B			C	C	C	C	A			
Approach Delay		27.9			30.8			22.5				
Approach LOS		C			C			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 26.4 Intersection LOS: C
Intersection Capacity Utilization 74.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

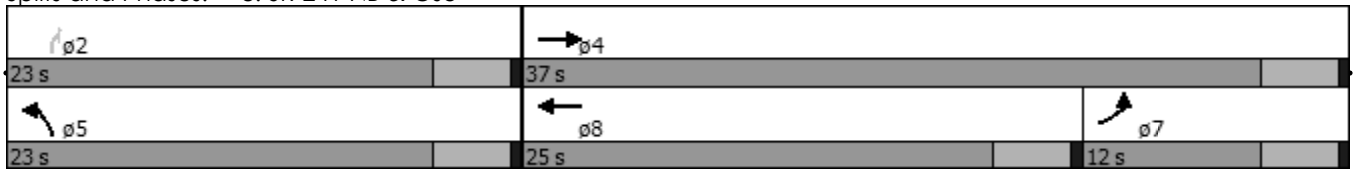


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	530	0	0	1240	360	1030	0	80	0	0	0
Future Volume (vph)	390	530	0	0	1240	360	1030	0	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4875	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					134				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	558	0	0	1684	0	1084	0	84	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	12.0	37.0			25.0		23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	8.0	33.0			21.0		19.0		19.0			
Actuated g/C Ratio	0.13	0.55			0.35		0.32		0.32			
v/c Ratio	0.90	0.29			0.94		1.00		0.15			
Control Delay	51.9	7.7			29.9		49.9		4.5			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	51.9	7.7			29.9		49.9		4.5			
LOS	D	A			C		D		A			
Approach Delay		26.5			29.9							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 34.1		Intersection LOS: C	
Intersection Capacity Utilization 87.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

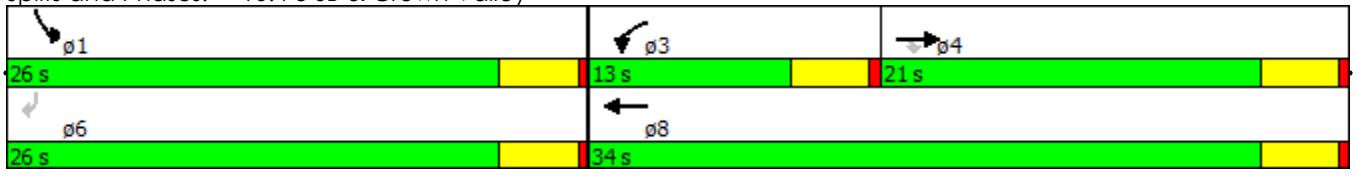


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1690	230	370	1290	0	0	0	0	1180	0	710
Future Volume (vph)	0	1690	230	370	1290	0	0	0	0	1180	0	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1779	242	389	1358	0	0	0	0	1242	0	747
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		21.0	21.0	13.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		17.0	17.0	9.0	30.0					22.0		22.0
Actuated g/C Ratio		0.28	0.28	0.15	0.50					0.37		0.37
v/c Ratio		0.83	0.40	0.76	0.53					0.68		0.69
Control Delay		24.5	5.0	35.9	11.2					18.3		18.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		24.5	5.0	35.9	11.2					18.3		18.1
LOS		C	A	D	B					B		B
Approach Delay		22.2			16.7							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

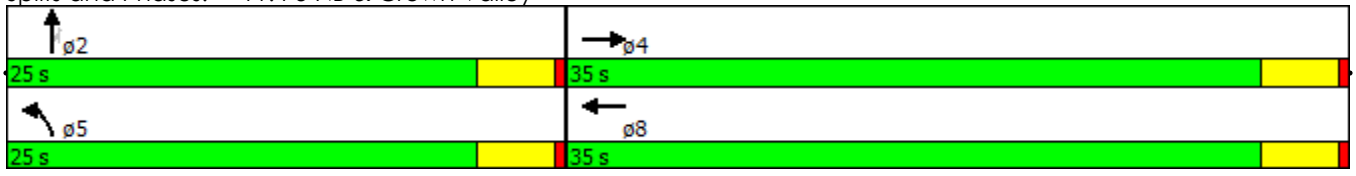


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2040	760	0	1400	1220	330	0	540	0	0	0
Future Volume (vph)	0	2040	760	0	1400	1220	330	0	540	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5910	1283	0	4585	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5910	1260	0	4585	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71	528		271	642		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			34%			50%	10%		47%			
Lane Group Flow (vph)	0	2419	528	0	2116	642	312	302	301	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.78	0.42		0.85	0.47	0.53	0.58	0.56			
Control Delay		13.7	1.0		15.1	1.2	19.6	20.2	19.6			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		13.7	1.0		15.1	1.2	19.6	20.2	19.6			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.4			11.8			19.8				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

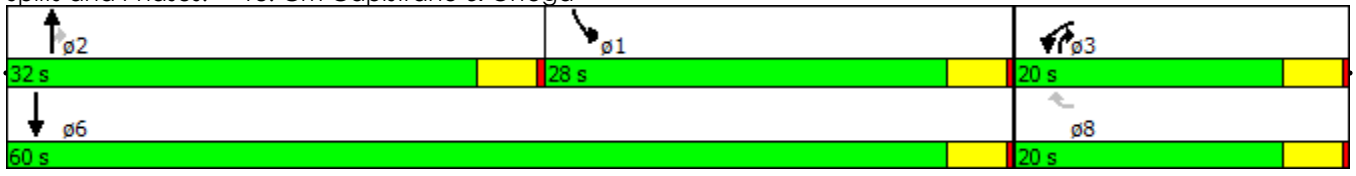


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	120	530	560	30	460	670
Future Volume (vph)	120	530	560	30	460	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1681	1474	1863	1518	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		558		23		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	558	589	32	484	705
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	32.0	20.0	28.0	60.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.4	11.2	28.1	39.5	24.1	56.1
Actuated g/C Ratio	0.15	0.15	0.37	0.52	0.32	0.74
v/c Ratio	0.47	0.80	0.85	0.04	0.86	0.51
Control Delay	35.0	13.0	36.8	3.8	42.5	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	13.0	36.8	3.8	42.5	6.2
LOS	C	B	D	A	D	A
Approach Delay	17.0		35.1			21.0
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1280	610
Future Volume (vph)	540	10	80	10	10	10	260	1130	10	10	1280	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1551	0	1770	1723	0	1770	5077	0	1770	3539	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				423
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1200	0	11	1347	642
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	22.0		9.0	11.0		19.0	50.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	16.0	17.0		6.4	6.1		15.1	53.6		5.0	36.2	36.2
Actuated g/C Ratio	0.19	0.20		0.08	0.07		0.18	0.64		0.06	0.43	0.43
v/c Ratio	0.86	0.25		0.08	0.16		0.86	0.37		0.10	0.88	0.72
Control Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	30.8	12.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	47.3	1.7
Total Delay	48.6	11.4		37.5	29.4		60.7	8.5		41.8	78.1	13.8
LOS	D	B		D	C		E	A		D	E	B
Approach Delay		43.3			32.1			18.2			57.3	
Approach LOS		D			C			B			E	

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 83.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 41.0		Intersection LOS: D	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			

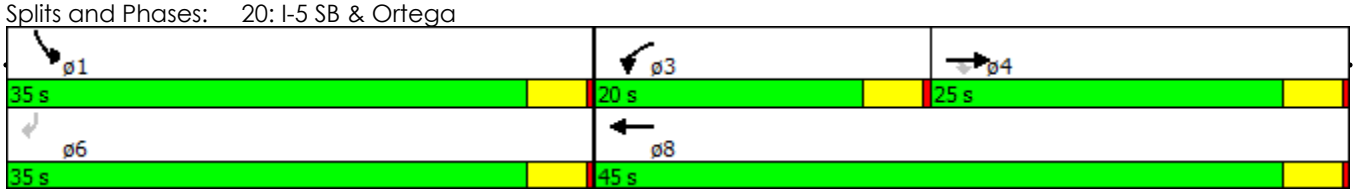
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1200	460	540	930	0	0	0	0	790	0	980
Future Volume (vph)	0	1200	460	540	930	0	0	0	0	790	0	980
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			435									172
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1263	484	568	979	0	0	0	0	832	0	1032
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.86	0.67	0.83	0.52					0.61		0.77
Control Delay		35.1	9.4	42.8	14.2					21.9		22.2
Queue Delay		1.6	0.0	0.0	0.6					0.0		0.0
Total Delay		36.6	9.4	42.8	14.8					21.9		22.2
LOS		D	A	D	B					C		C
Approach Delay		29.1			25.1							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 20: I-5 SB & Ortega

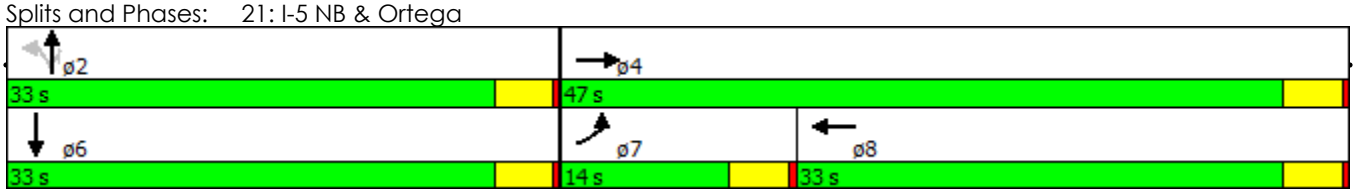


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1310	700	0	1890	10	260	10	850	0	0	10
Future Volume (vph)	10	1310	700	0	1890	10	260	10	850	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5374	1583	0	5529	0	0	1676	1583	0	1611	0
Flt Permitted	0.950							0.850				
Satd. Flow (perm)	1770	5374	1555	0	5529	0	0	1457	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		87	479		1			31	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			35%						36%			
Lane Group Flow (vph)	11	1637	479	0	2000	0	0	607	573	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	34.0	71.2		32.0			29.2	29.2		29.2	
Actuated g/C Ratio	0.09	0.48	1.00		0.45			0.41	0.41		0.41	
v/c Ratio	0.07	0.63	0.31		0.81			0.99	0.83		0.01	
Control Delay	33.3	14.1	0.5		20.9			57.4	30.8		0.0	
Queue Delay	0.0	1.4	0.0		0.0			0.0	0.0		0.0	
Total Delay	33.3	15.5	0.5		20.9			57.4	30.8		0.0	
LOS	C	B	A		C			E	C		A	
Approach Delay		12.2			20.9			44.5			0.0	
Approach LOS		B			C			D			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 82.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 21: I-5 NB & Ortega

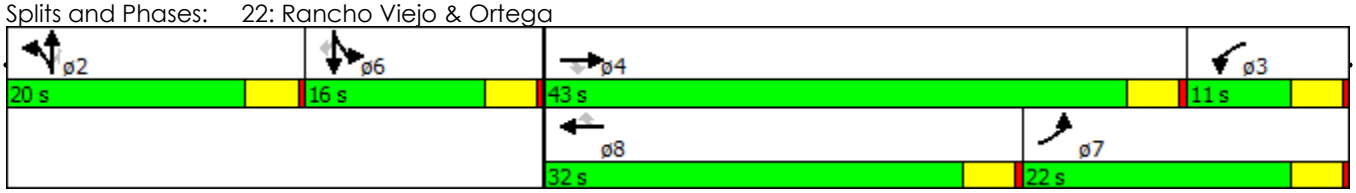


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	1190	440	80	1690	460	280	160	40	210	220	120
Future Volume (vph)	340	1190	440	80	1690	460	280	160	40	210	220	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1855	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.996	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1855	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			427			427			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	358	1253	463	84	1779	484	295	168	42	199	254	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	22.0	43.0	43.0	11.0	32.0	32.0	20.0	20.0	20.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	41.2	41.2	6.8	28.0	28.0	16.0	16.0	16.0	12.0	12.0	12.0
Actuated g/C Ratio	0.20	0.46	0.46	0.08	0.31	0.31	0.18	0.18	0.18	0.13	0.13	0.13
v/c Ratio	1.01	0.75	0.51	0.63	1.04	0.62	0.47	0.51	0.11	0.84	1.03	0.36
Control Delay	88.7	24.4	4.7	61.9	65.6	8.0	36.0	39.6	0.5	69.1	105.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.7	24.4	4.7	61.9	65.6	8.0	36.0	39.6	0.5	69.1	105.5	6.5
LOS	F	C	A	E	E	A	D	D	A	E	F	A
Approach Delay		31.1			53.6			34.2			71.4	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 45.2 Intersection LOS: D
Intersection Capacity Utilization 89.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

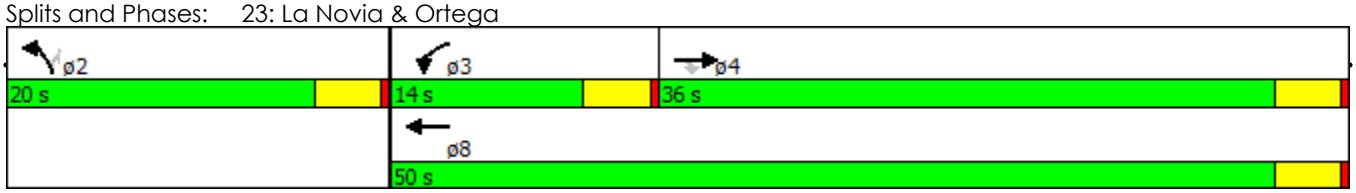


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1050	280	260	1950	340	210
Future Volume (vph)	1050	280	260	1950	340	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		279				221
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1105	295	274	2053	358	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	36.0	36.0	14.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	31.7	31.7	9.4	45.2	16.0	16.0
Actuated g/C Ratio	0.46	0.46	0.14	0.65	0.23	0.23
v/c Ratio	0.69	0.35	0.59	0.91	0.45	0.42
Control Delay	17.8	3.3	33.6	17.9	25.2	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	3.3	33.6	17.9	25.2	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.8			19.7	18.1	
Approach LOS	B			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 73.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

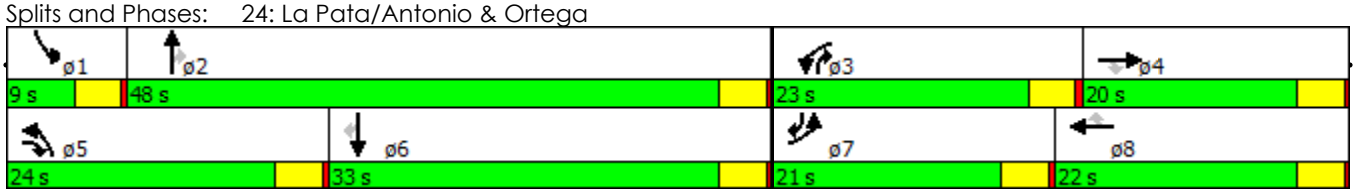


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	470	150	600	330	420	20	570	1380	220	10	1480	930
Future Volume (vph)	470	150	600	330	420	20	570	1380	220	10	1480	930
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			142			232			98
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	495	158	632	347	442	21	600	1453	232	11	1558	979
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	21.0	20.0	24.0	23.0	22.0	22.0	24.0	48.0	23.0	9.0	33.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.8	13.9	33.9	19.0	16.1	16.1	20.0	51.3	70.3	5.0	29.0	45.8
Actuated g/C Ratio	0.17	0.14	0.35	0.19	0.16	0.16	0.20	0.52	0.72	0.05	0.30	0.47
v/c Ratio	0.82	0.31	1.10	1.01	0.74	0.06	0.83	0.50	0.20	0.12	0.94	0.67
Control Delay	51.5	39.1	97.8	92.5	47.0	0.3	49.0	16.5	1.1	48.5	46.4	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	39.1	97.8	92.5	47.0	0.3	49.0	16.5	1.1	48.5	46.4	18.8
LOS	D	D	F	F	D	A	D	B	A	D	D	B
Approach Delay		72.7			65.3			23.5			35.8	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 97.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 42.0		Intersection LOS: D	
Intersection Capacity Utilization 96.0%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 24: La Pata/Antonio & Ortega

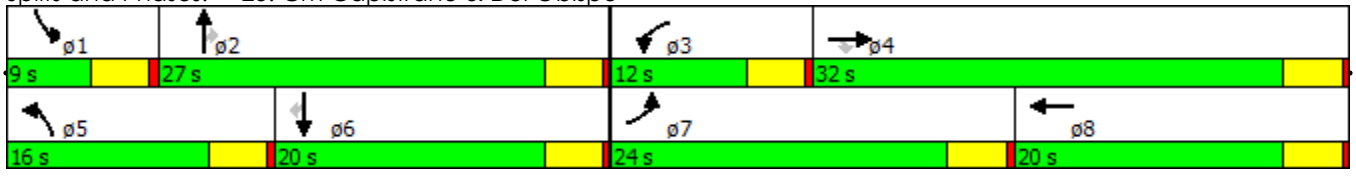


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Future Volume (vph)	400	480	410	150	480	20	460	480	140	30	310	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340		5				177			409
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	421	505	432	158	526	0	484	505	147	32	326	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	32.0	32.0	12.0	20.0		16.0	27.0	27.0	9.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.9	27.3	27.3	7.7	15.1		12.0	28.4	28.4	5.0	16.0	16.0
Actuated g/C Ratio	0.25	0.35	0.35	0.10	0.19		0.15	0.36	0.36	0.06	0.20	0.20
v/c Ratio	0.94	0.41	0.58	0.47	0.78		0.93	0.75	0.22	0.29	0.86	0.75
Control Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	21.0	8.4	39.0	39.4		60.6	33.7	3.3	42.7	55.3	14.2
LOS	E	C	A	D	D		E	C	A	D	E	B
Approach Delay		29.8			39.3			41.2			31.4	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 35.0 Intersection LOS: C
Intersection Capacity Utilization 78.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	730	540	590	580	580	550
Future Volume (vph)	730	540	590	580	580	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3355	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3355	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	39	333		18		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		26%				
Lane Group Flow (vph)	916	420	621	611	611	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	0.89	0.65	0.62	0.67	0.82	0.29
Control Delay	32.0	9.8	21.9	10.5	33.9	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	9.8	21.9	10.5	33.9	7.2
LOS	C	A	C	B	C	A
Approach Delay	25.0		16.3			20.9
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	630	300	880	50	560	720
Future Volume (vph)	630	300	880	50	560	720
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		316		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	663	316	926	53	589	758
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	18.0		25.0		17.0	42.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	13.7	59.7	21.3	59.7	12.7	38.0
Actuated g/C Ratio	0.23	1.00	0.36	1.00	0.21	0.64
v/c Ratio	0.84	0.20	0.73	0.03	0.81	0.34
Control Delay	33.9	0.3	21.1	0.0	32.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	0.3	21.1	0.0	32.9	5.6
LOS	C	A	C	A	C	A
Approach Delay	23.0		20.0			17.5
Approach LOS	C		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	880	390	350
Future Volume (vph)	520	630	240	880	390	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.655	0.950	
Satd. Flow (perm)	1863	1493	0	2318	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				295
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1179	411	368
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.3	32.3		32.3	17.1	17.1
Actuated g/C Ratio	0.56	0.56		0.56	0.30	0.30
v/c Ratio	0.52	0.59		0.91	0.78	0.54
Control Delay	9.8	3.0		23.1	32.6	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	9.8	3.0		23.1	32.6	8.0
LOS	A	A		C	C	A
Approach Delay	6.1			23.1	21.0	
Approach LOS	A			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 90.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Future Volume (vph)	380	60	80	20	290	150	100	200	20	50	300	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				526
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	463	84	0	326	158	105	232	0	0	369	526
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	22.0	22.0	22.0	16.0	16.0	16.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		17.3	17.3		11.9	11.9	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.29	0.29		0.20	0.20	0.30	0.30			0.30	0.30
v/c Ratio		0.89	0.16		0.87	0.36	0.54	0.41			0.71	0.62
Control Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		42.4	4.8		50.3	6.9	30.9	18.8			27.8	5.6
LOS		D	A		D	A	C	B			C	A
Approach Delay		36.6			36.1			22.6			14.8	
Approach LOS		D			D			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 25.8 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

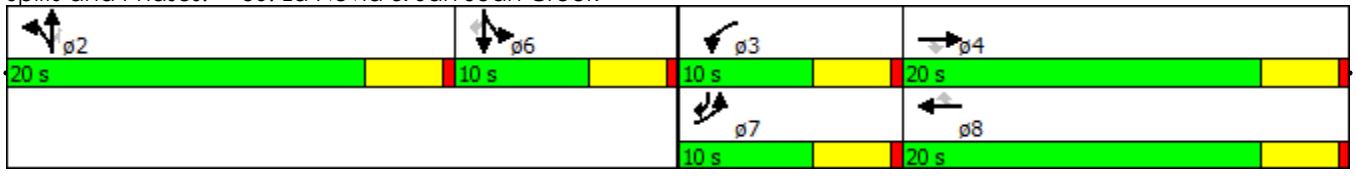
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Future Volume (vph)	160	120	90	50	210	270	130	250	40	170	160	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1493	1770	1863	1493	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			284			164			337
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	126	95	53	221	284	137	263	42	179	168	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	6.0	16.0	16.0	5.9	11.8	11.8	16.1	16.1	16.1	6.0	6.0	16.1
Actuated g/C Ratio	0.11	0.29	0.29	0.11	0.21	0.21	0.29	0.29	0.29	0.11	0.11	0.29
v/c Ratio	0.88	0.24	0.17	0.28	0.57	0.53	0.27	0.49	0.08	0.94	0.84	0.49
Control Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	18.5	1.6	28.5	25.5	6.8	18.3	21.2	0.3	84.0	63.7	5.2
LOS	E	B	A	C	C	A	B	C	A	F	E	A
Approach Delay		37.6			16.3			18.3			40.2	
Approach LOS		D			B			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 28.6		Intersection LOS: C	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

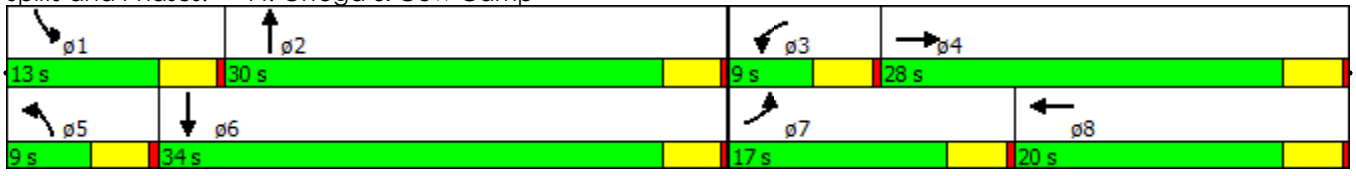


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	480	870	10	40	280	20	10	90	180	80	680	570
Future Volume (vph)	480	870	10	40	280	20	10	90	180	80	680	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3678	0	1770	3261	0	1770	3407	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3678	0	1770	3261	0	1770	3407	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			189			302	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	505	927	0	42	316	0	11	284	0	84	1316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	17.0	28.0		9.0	20.0		9.0	30.0		13.0	34.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	12.8	24.8		5.1	13.0		5.1	27.3		8.0	35.2	
Actuated g/C Ratio	0.17	0.33		0.07	0.17		0.07	0.36		0.11	0.47	
v/c Ratio	0.83	0.75		0.35	0.49		0.09	0.22		0.45	0.75	
Control Delay	45.2	28.5		44.4	30.1		37.3	7.5		41.0	16.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	45.2	28.5		44.4	30.1		37.3	7.5		41.0	16.8	
LOS	D	C		D	C		D	A		D	B	
Approach Delay		34.4			31.8			8.6			18.3	
Approach LOS		C			C			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 74.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.5		Intersection LOS: C	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp

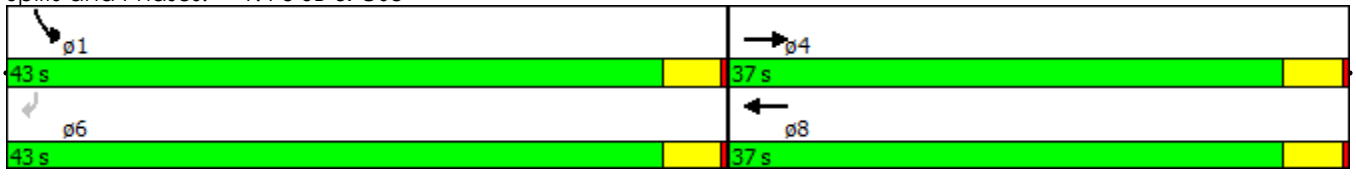


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1710	520	0	1460	660	0	0	0	1320	0	400
Future Volume (vph)	0	1710	520	0	1460	660	0	0	0	1320	0	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			411			695						14
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1800	547	0	1537	695	0	0	0	1389	0	421
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		37.0			37.0					43.0		43.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		32.9	79.9		32.9	79.9				39.0		39.0
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.49		0.49
v/c Ratio		0.86	0.36		0.73	0.44				0.83		0.31
Control Delay		26.8	0.6		22.4	0.9				23.1		12.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		26.8	0.6		22.4	0.9				23.1		12.7
LOS		C	A		C	A				C		B
Approach Delay		20.7			15.7							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 77.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

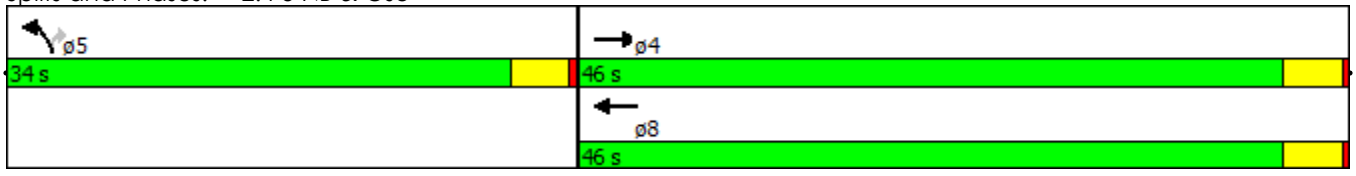


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2600	390	0	1510	720	590	0	610	0	0	0
Future Volume (vph)	0	2600	390	0	1510	720	590	0	610	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			181			758			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2737	411	0	1589	758	621	0	642	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		46.0			46.0		34.0		34.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		42.0	80.0		42.0	80.0	30.0		30.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.38		0.38			
v/c Ratio		1.03	0.27		0.60	0.48	0.48		1.07			
Control Delay		44.7	0.4		14.3	1.0	20.6		82.3			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.7	0.4		14.3	1.0	20.6		82.3			
LOS		D	A		B	A	C		F			
Approach Delay		38.9			10.0							
Approach LOS		D			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 31.3 Intersection LOS: C
Intersection Capacity Utilization 94.7% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

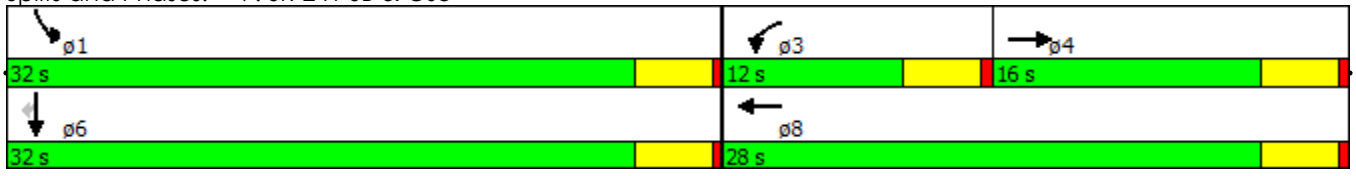


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	680	1170	100	1470	0	0	0	0	330	1090	320
Future Volume (vph)	0	680	1170	100	1470	0	0	0	0	330	1090	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	716	1232	105	1547	0	0	0	0	347	1147	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		16.0		12.0	28.0					32.0	32.0	32.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		14.0	59.4	7.4	23.4					28.0	28.0	28.0
Actuated g/C Ratio		0.24	1.00	0.12	0.39					0.47	0.47	0.47
v/c Ratio		0.60	0.78	0.48	0.77					0.21	0.69	0.42
Control Delay		23.7	3.8	31.9	18.9					9.8	15.1	9.5
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		23.7	3.8	31.9	18.9					9.8	15.1	9.5
LOS		C	A	C	B					A	B	A
Approach Delay		11.1			19.7						13.1	
Approach LOS		B			B						B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

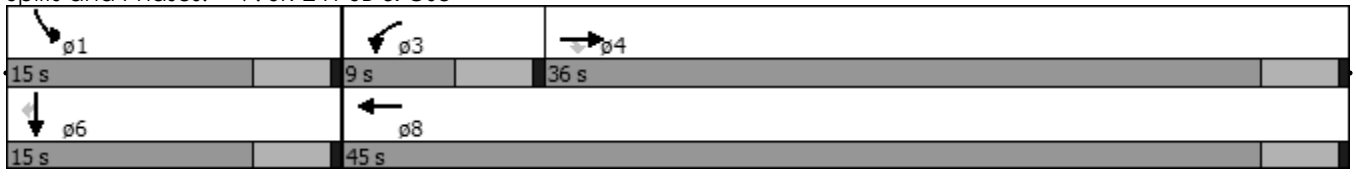


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑					↰	✣	↱
Traffic Volume (vph)	0	680	1170	100	1470	0	0	0	0	330	0	320
Future Volume (vph)	0	680	1170	100	1470	0	0	0	0	330	0	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Flt Permitted				0.950						0.950	0.977	
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	1681	1525	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			784								91	91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										31%		36%
Lane Group Flow (vph)	0	716	1232	105	1547	0	0	0	0	239	229	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot	NA	Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4									6
Total Split (s)		36.0	36.0	9.0	45.0					15.0	15.0	15.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		32.1	32.1	5.0	39.1					11.0	11.0	11.0
Actuated g/C Ratio		0.55	0.55	0.09	0.67					0.19	0.19	0.19
v/c Ratio		0.25	1.01	0.69	0.45					0.75	0.63	0.60
Control Delay		7.5	36.0	53.5	4.9					40.9	23.4	21.7
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		7.5	36.0	53.5	4.9					40.9	23.4	21.7
LOS		A	D	D	A					D	C	C
Approach Delay		25.5			8.0						29.0	
Approach LOS		C			A						C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 19.3 Intersection LOS: B
Intersection Capacity Utilization 100.4% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

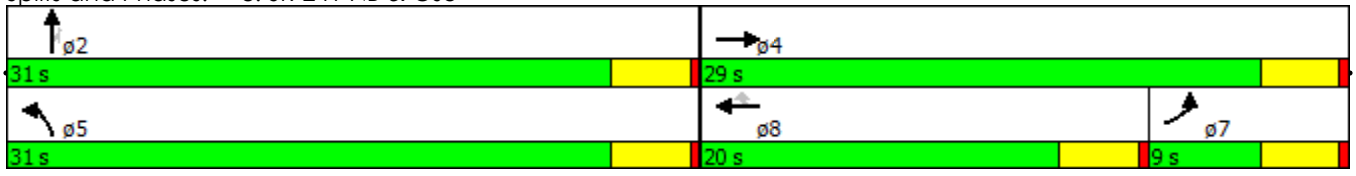


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	920	610	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	920	610	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	3539	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	600	63	968	642	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot	NA	Perm			
Protected Phases	7	4			8		5	2				
Permitted Phases						8			2			
Total Split (s)	9.0	29.0			20.0	20.0	31.0	31.0	31.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Act Effct Green (s)	5.1	20.6			17.1	17.1	27.1	27.1	27.1			
Actuated g/C Ratio	0.09	0.37			0.31	0.31	0.49	0.49	0.49			
v/c Ratio	0.13	0.72			0.38	0.12	0.58	0.37	0.30			
Control Delay	25.9	18.5			16.8	3.2	12.7	10.5	7.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	25.9	18.5			16.8	3.2	12.7	10.5	7.3			
LOS	C	B			B	A	B	B	A			
Approach Delay		18.8			15.5			11.2				
Approach LOS		B			B			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

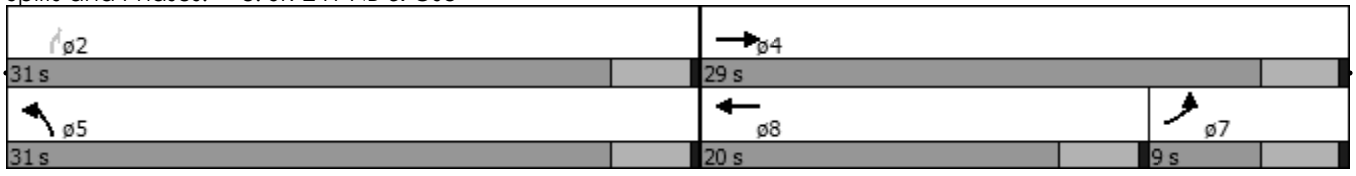


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	890	0	0	570	60	920	0	230	0	0	0
Future Volume (vph)	40	890	0	0	570	60	920	0	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4998	0	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					29				91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	937	0	0	663	0	968	0	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases									2			
Total Split (s)	9.0	29.0			20.0		31.0		31.0			
Total Lost Time (s)	4.0	4.0			4.0		4.0		4.0			
Act Effct Green (s)	5.2	20.6			17.0		27.1		27.1			
Actuated g/C Ratio	0.09	0.37			0.31		0.49		0.49			
v/c Ratio	0.13	0.72			0.43		0.58		0.30			
Control Delay	25.8	18.5			16.5		12.7		7.3			
Queue Delay	0.0	0.0			0.0		0.0		0.0			
Total Delay	25.8	18.5			16.5		12.7		7.3			
LOS	C	B			B		B		A			
Approach Delay		18.8			16.5							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 100.4%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

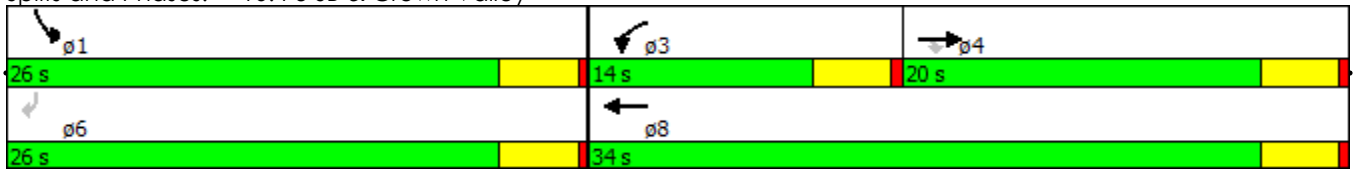


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1820	320	490	1390	0	0	0	0	1390	0	1060
Future Volume (vph)	0	1820	320	490	1390	0	0	0	0	1390	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1916	337	516	1463	0	0	0	0	1463	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	14.0	34.0					26.0		26.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	10.0	30.0					22.0		22.0
Actuated g/C Ratio		0.27	0.27	0.17	0.50					0.37		0.37
v/c Ratio		0.95	0.52	0.90	0.58					0.80		1.03
Control Delay		34.7	5.7	47.2	11.7					21.2		57.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.7	5.7	47.2	11.7					21.2		57.1
LOS		C	A	D	B					C		E
Approach Delay		30.4			20.9							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 71.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2590	510	0	1670	1490	240	0	440	0	0	0
Future Volume (vph)	0	2590	510	0	1670	1490	240	0	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4585	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4585	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10	396		335	784		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2780	483	0	2542	784	228	247	241	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		40.0			40.0		20.0	20.0	20.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		36.0	60.0		36.0	60.0	16.0	16.0	16.0			
Actuated g/C Ratio		0.60	1.00		0.60	1.00	0.27	0.27	0.27			
v/c Ratio		0.77	0.38		0.88	0.58	0.51	0.61	0.58			
Control Delay		10.8	0.9		13.8	1.8	23.4	25.5	24.2			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		10.8	0.9		13.8	1.8	23.4	25.5	24.2			
LOS		B	A		B	A	C	C	C			
Approach Delay		9.3			10.9			24.4				
Approach LOS		A			B			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 65.3% ICU Level of Service C
Analysis Period (min) 15

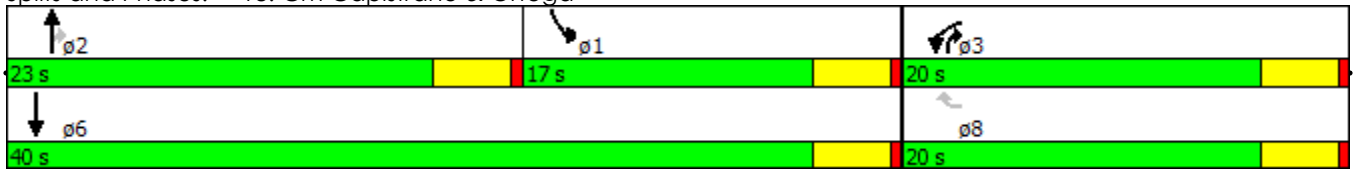
Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	540	100	380	610
Future Volume (vph)	160	490	540	100	380	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		493		73		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	568	105	400	642
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	23.0	20.0	17.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	19.1	29.6	13.0	36.1
Actuated g/C Ratio	0.19	0.19	0.35	0.54	0.24	0.66
v/c Ratio	0.49	0.76	0.87	0.12	0.95	0.52
Control Delay	24.5	10.8	35.8	2.2	58.1	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	10.8	35.8	2.2	58.1	7.4
LOS	C	B	D	A	E	A
Approach Delay	14.2		30.5			26.9
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	660	10	150	10	10	10	160	1280	10	10	1000	820
Future Volume (vph)	660	10	150	10	10	10	160	1280	10	10	1000	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			1				595
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	695	169	0	11	22	0	168	1358	0	11	1053	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		19.0	68.0		9.0	58.0	58.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.8	27.3		8.0	6.2		15.1	71.6		5.0	54.3	54.3
Actuated g/C Ratio	0.23	0.24		0.07	0.05		0.13	0.63		0.04	0.48	0.48
v/c Ratio	0.89	0.35		0.09	0.21		0.71	0.42		0.14	0.62	0.84
Control Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	25.0	17.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	26.1	9.0
Total Delay	57.4	10.1		49.9	40.3		66.4	12.3		59.5	51.2	26.2
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		48.1			43.5			18.2			40.0	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 113.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 34.0		Intersection LOS: C	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

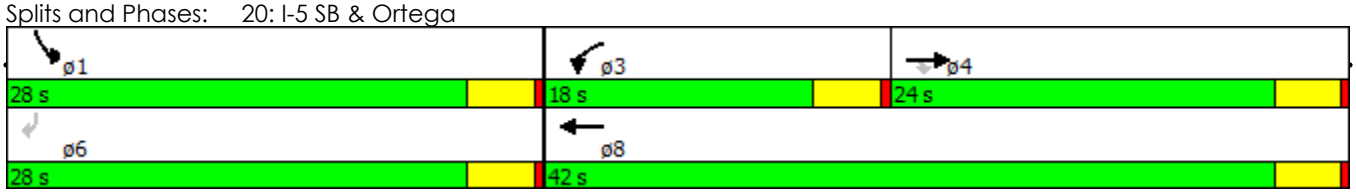
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1450	480	610	810	0	0	0	0	1010	0	1020
Future Volume (vph)	0	1450	480	610	810	0	0	0	0	1010	0	1020
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			443									275
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1526	505	642	853	0	0	0	0	1063	0	1074
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		24.0	24.0	18.0	42.0					28.0		28.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		20.0	20.0	14.0	38.0					24.0		24.0
Actuated g/C Ratio		0.29	0.29	0.20	0.54					0.34		0.34
v/c Ratio		0.96	0.67	0.92	0.42					0.89		0.85
Control Delay		40.2	9.0	48.1	10.3					32.6		23.7
Queue Delay		3.0	0.0	0.0	0.0					0.0		0.0
Total Delay		43.2	9.0	48.1	10.3					32.6		23.7
LOS		D	A	D	B					C		C
Approach Delay		34.7			26.5							
Approach LOS		C			C							

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 30.1		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 20: I-5 SB & Ortega

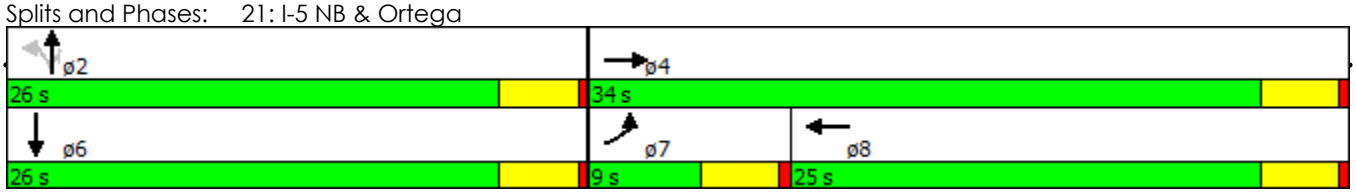


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1770	690	0	1800	10	210	10	670	0	0	10
Future Volume (vph)	10	1770	690	0	1800	10	210	10	670	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5463	1583	0	5529	0	0	1680	1583	0	1611	0
Flt Permitted	0.950							0.847				
Satd. Flow (perm)	1770	5463	1555	0	5529	0	0	1456	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33	581		2			6	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			20%						35%			
Lane Group Flow (vph)	11	2008	581	0	1906	0	0	479	458	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	29.6	59.6		27.8			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.37	0.37		0.37	
v/c Ratio	0.07	0.74	0.37		0.74			0.89	0.71		0.02	
Control Delay	26.7	13.7	0.7		16.9			39.7	20.7		0.0	
Queue Delay	0.0	48.0	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.7	61.7	0.7		16.9			39.7	20.7		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		47.9			16.9			30.4			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.0 Intersection LOS: C
Intersection Capacity Utilization 78.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

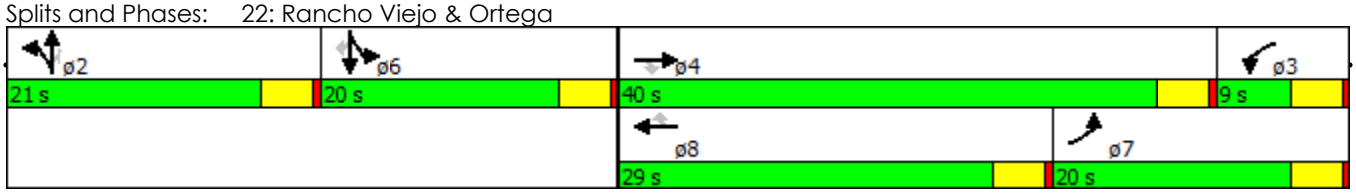


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	1300	380	70	1060	270	440	150	50	380	150	250
Future Volume (vph)	240	1300	380	70	1060	270	440	150	50	380	150	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			320			284			158			254
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	253	1368	400	74	1116	284	463	158	53	276	282	263
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	40.0	40.0	9.0	29.0	29.0	21.0	21.0	21.0	20.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.2	36.1	36.1	5.0	24.0	24.0	17.0	17.0	17.0	16.0	16.0	16.0
Actuated g/C Ratio	0.17	0.41	0.41	0.06	0.27	0.27	0.19	0.19	0.19	0.18	0.18	0.18
v/c Ratio	0.83	0.92	0.51	0.74	0.75	0.45	0.68	0.44	0.13	0.86	0.85	0.53
Control Delay	59.7	36.3	7.0	82.9	33.1	5.8	39.2	36.6	0.6	62.2	60.8	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	36.3	7.0	82.9	33.1	5.8	39.2	36.6	0.6	62.2	60.8	9.4
LOS	E	D	A	F	C	A	D	D	A	E	E	A
Approach Delay		33.4			30.4			35.6			44.8	
Approach LOS		C			C			D			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 88.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 34.7		Intersection LOS: C	
Intersection Capacity Utilization 81.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 22: Rancho Viejo & Ortega

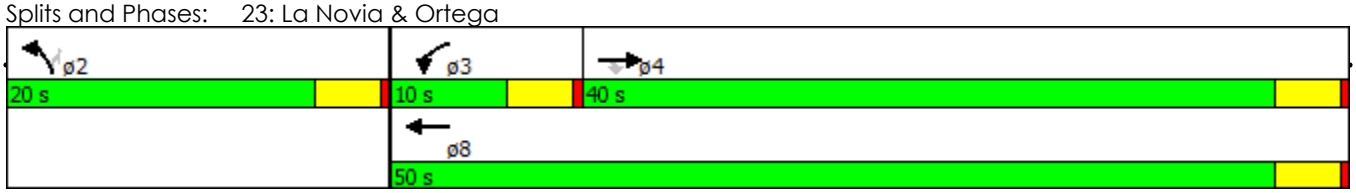


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1550	300	240	1180	260	210
Future Volume (vph)	1550	300	240	1180	260	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		226				167
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1632	316	253	1242	274	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	40.0	40.0	10.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	35.9	35.9	6.0	45.9	16.0	16.0
Actuated g/C Ratio	0.51	0.51	0.09	0.66	0.23	0.23
v/c Ratio	0.92	0.35	0.86	0.54	0.35	0.46
Control Delay	25.6	4.3	60.8	7.5	24.1	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	4.3	60.8	7.5	24.1	10.7
LOS	C	A	E	A	C	B
Approach Delay	22.2			16.5	18.1	
Approach LOS	C			B	B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 69.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 73.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 23: La Novia & Ortega

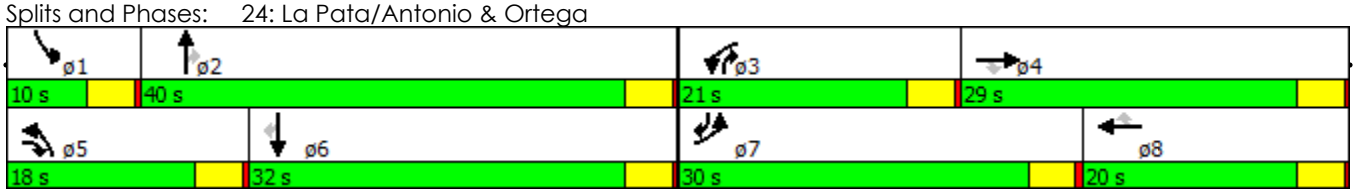


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	800	640	240	220	210	10	400	1110	350	40	1350	710
Future Volume (vph)	800	640	240	220	210	10	400	1110	350	40	1350	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55			185			98			165
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	842	674	253	232	221	11	421	1168	368	42	1421	747
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	30.0	29.0	18.0	21.0	20.0	20.0	18.0	40.0	21.0	10.0	32.0	30.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	25.5	23.0	36.7	15.6	13.1	13.1	13.7	40.0	55.6	5.9	28.1	53.6
Actuated g/C Ratio	0.26	0.24	0.38	0.16	0.14	0.14	0.14	0.41	0.58	0.06	0.29	0.56
v/c Ratio	0.90	0.77	0.41	0.81	0.45	0.03	0.84	0.50	0.40	0.39	0.87	0.42
Control Delay	48.6	41.4	17.2	61.8	41.2	0.2	56.7	23.2	9.1	55.8	40.3	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	41.4	17.2	61.8	41.2	0.2	56.7	23.2	9.1	55.8	40.3	9.1
LOS	D	D	B	E	D	A	E	C	A	E	D	A
Approach Delay		41.4			50.6			27.8			30.1	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 96.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 34.0 Intersection LOS: C
Intersection Capacity Utilization 83.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

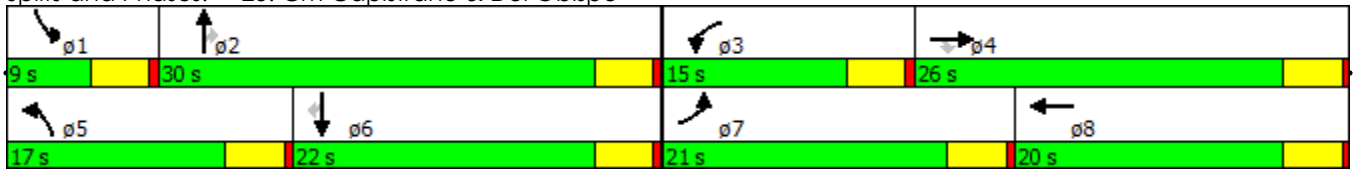


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Future Volume (vph)	360	540	420	360	560	60	550	510	230	60	370	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3466	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3466	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			304		13				198			283
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	568	442	379	652	0	579	537	242	63	389	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	21.0	26.0	26.0	15.0	20.0		17.0	30.0	30.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	17.0	22.1	22.1	10.9	16.0		13.0	27.8	27.8	5.0	18.0	18.0
Actuated g/C Ratio	0.21	0.28	0.28	0.14	0.20		0.16	0.35	0.35	0.06	0.22	0.22
v/c Ratio	1.01	0.58	0.69	0.81	0.93		1.04	0.83	0.37	0.57	0.93	0.68
Control Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	27.9	14.8	48.6	52.6		83.7	38.3	7.0	58.3	62.0	14.8
LOS	F	C	B	D	D		F	D	A	E	E	B
Approach Delay		38.7			51.1			52.1			40.2	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 45.7		Intersection LOS: D	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	640	540	500	680	730
Future Volume (vph)	840	640	540	500	680	730
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	343		9		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1073	485	568	526	716	768
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	22.0	22.0	21.0	22.0	17.0	38.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.0	18.0	17.0	35.0	13.0	34.0
Actuated g/C Ratio	0.30	0.30	0.28	0.58	0.22	0.57
v/c Ratio	1.04	0.74	0.57	0.58	0.96	0.38
Control Delay	60.9	14.3	21.0	8.7	51.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	14.3	21.0	8.7	51.5	7.9
LOS	E	B	C	A	D	A
Approach Delay	46.4		15.1			28.9
Approach LOS	D		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 75.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	840	360	690	50	600	970
Future Volume (vph)	840	360	690	50	600	970
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		379		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	884	379	726	53	632	1021
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	22.0		20.0		18.0	38.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	17.5	59.5	16.4	59.5	13.6	34.0
Actuated g/C Ratio	0.29	1.00	0.28	1.00	0.23	0.57
v/c Ratio	0.88	0.24	0.74	0.03	0.81	0.50
Control Delay	31.9	0.4	25.8	0.0	31.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	0.4	25.8	0.0	31.6	8.9
LOS	C	A	C	A	C	A
Approach Delay	22.4		24.1			17.6
Approach LOS	C		C			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15

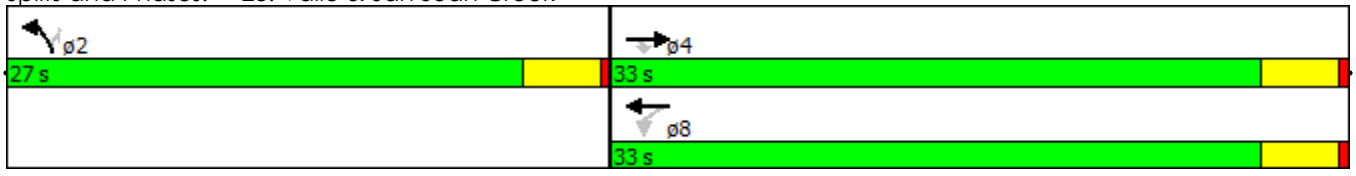
Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	600	580	110	920	570	240
Future Volume (vph)	600	580	110	920	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3522	1770	1583
Flt Permitted				0.685	0.950	
Satd. Flow (perm)	1863	1493	0	2424	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				176
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	632	611	0	1084	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	33.0	33.0	33.0	33.0	27.0	27.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.4	28.4		28.4	23.0	23.0
Actuated g/C Ratio	0.48	0.48		0.48	0.39	0.39
v/c Ratio	0.71	0.59		0.94	0.87	0.35
Control Delay	17.7	3.7		31.9	34.3	6.2
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.7	3.7		31.9	34.3	6.2
LOS	B	A		C	C	A
Approach Delay	10.8			31.9	26.0	
Approach LOS	B			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 101.8% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

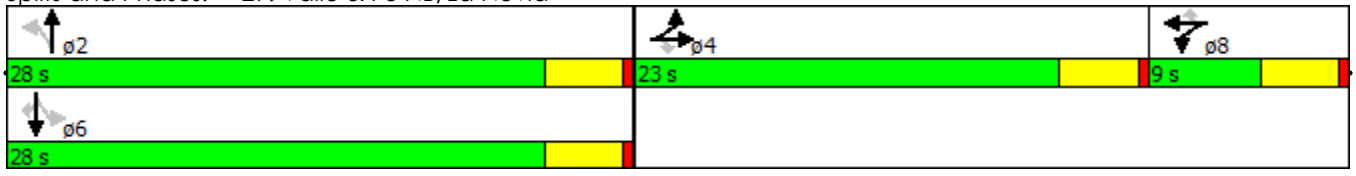


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Future Volume (vph)	370	80	70	20	90	110	180	310	40	120	230	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1831	1583
Flt Permitted		0.961			0.991		0.438				0.695	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	816	1819	0	0	1295	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		13				347
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	74	0	116	116	189	368	0	0	368	347
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	23.0	23.0	23.0	9.0	9.0	9.0	28.0	28.0		28.0	28.0	28.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.1	18.1		5.1	5.1	24.3	24.3			24.3	24.3
Actuated g/C Ratio		0.32	0.32		0.09	0.09	0.42	0.42			0.42	0.42
v/c Ratio		0.84	0.13		0.72	0.47	0.55	0.47			0.67	0.40
Control Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		35.1	3.8		55.1	13.5	21.4	15.1			22.7	3.2
LOS		D	A		E	B	C	B			C	A
Approach Delay		30.8			34.3			17.3			13.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 79.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 29: Valle & I-5 NB/La Novia

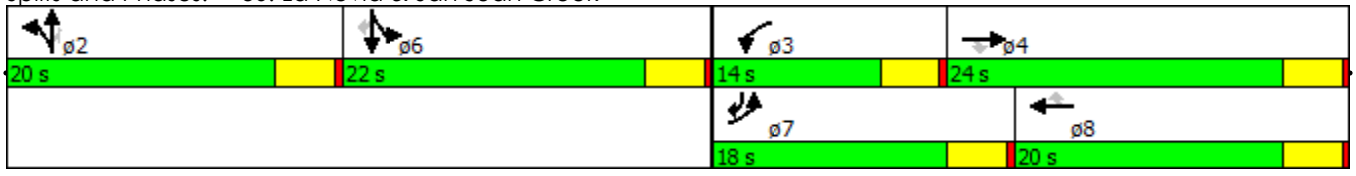


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Future Volume (vph)	180	100	20	100	100	260	90	190	10	200	270	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			326
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	105	21	105	105	274	95	200	11	211	284	326
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	18.0	24.0	24.0	14.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0	18.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.8	15.1	15.1	8.7	9.7	9.7	16.1	16.1	16.1	18.1	18.1	33.9
Actuated g/C Ratio	0.16	0.21	0.21	0.12	0.14	0.14	0.22	0.22	0.22	0.25	0.25	0.47
v/c Ratio	0.65	0.27	0.05	0.49	0.42	0.63	0.24	0.48	0.03	0.47	0.61	0.35
Control Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	27.2	0.2	39.0	33.8	11.1	26.7	30.2	0.1	28.4	31.5	2.8
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.1			22.1			28.0			19.3	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

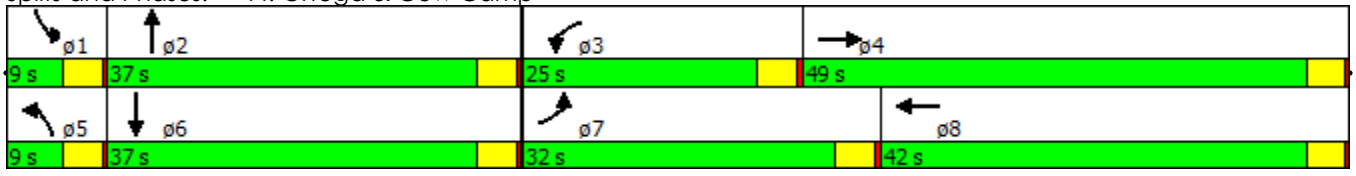


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	720	420	10	170	950	100	10	800	50	30	150	590
Future Volume (vph)	720	420	10	170	950	100	10	800	50	30	150	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3706	0	1770	3654	0	1770	3680	0	1770	3132	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3706	0	1770	3654	0	1770	3680	0	1770	3132	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			10			6			414	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	758	453	0	179	1105	0	11	895	0	32	779	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	32.0	49.0		25.0	42.0		9.0	37.0		9.0	37.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	27.0	47.8		16.3	37.1		5.0	33.1		5.0	36.6	
Actuated g/C Ratio	0.24	0.42		0.14	0.32		0.04	0.29		0.04	0.32	
v/c Ratio	0.91	0.29		0.71	0.93		0.14	0.84		0.42	0.61	
Control Delay	58.9	23.9		63.0	51.7		59.7	47.0		72.0	17.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.9	23.9		63.0	51.7		59.7	47.0		72.0	17.3	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		45.8			53.3			47.2			19.5	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 114.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 43.3 Intersection LOS: D
Intersection Capacity Utilization 85.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp



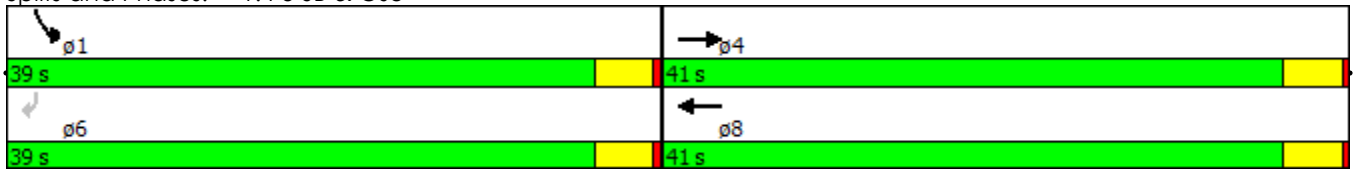
HCM Signalized Intersection Data Set 10 2035 Cumulative With SR-241 Extension – No Project

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Future Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			779						19
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1137	421	0	1558	779	0	0	0	579	0	716
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		41.0			41.0					39.0		39.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		31.9	75.1		31.9	75.1				35.2		35.2
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.47		0.47
v/c Ratio		0.53	0.27		0.72	0.49				0.36		0.54
Control Delay		16.8	0.4		19.9	1.1				14.4		16.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		16.8	0.4		19.9	1.1				14.4		16.7
LOS		B	A		B	A				B		B
Approach Delay		12.4			13.6							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 75.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

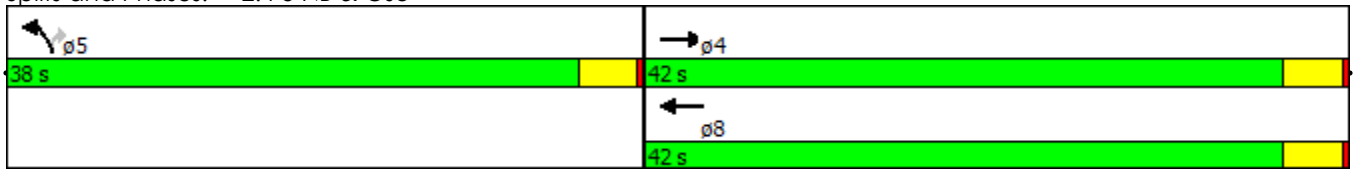


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1160	480	0	2020	1320	340	0	480	0	0	0
Future Volume (vph)	0	1160	480	0	2020	1320	340	0	480	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			498			1091			30			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1221	505	0	2126	1389	358	0	505	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		42.0			42.0		38.0		38.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		36.7	71.2		36.7	71.2	26.4		26.4			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.37		0.37			
v/c Ratio		0.47	0.33		0.81	0.88	0.28		0.83			
Control Delay		12.6	0.6		18.9	8.3	16.2		32.5			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		12.6	0.6		18.9	8.3	16.2		32.5			
LOS		B	A		B	A	B		C			
Approach Delay		9.1			14.7							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 14.7		Intersection LOS: B	
Intersection Capacity Utilization 58.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

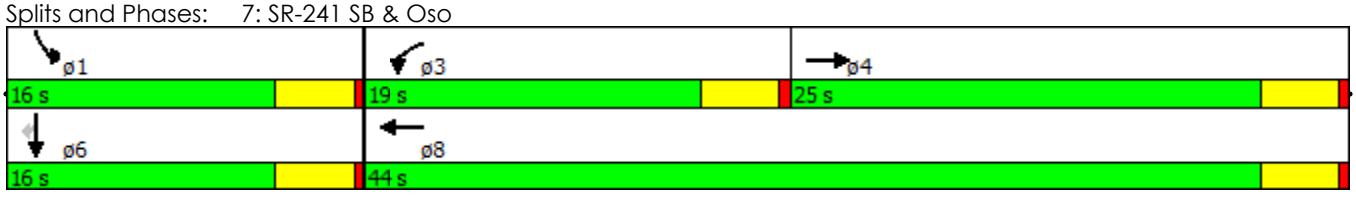


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	670	290	110	1570	0	0	0	0	50	0	80
Future Volume (vph)	0	670	290	110	1570	0	0	0	0	50	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			305									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	705	305	116	1653	0	0	0	0	53	0	84
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		19.0	44.0					16.0	16.0	16.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		15.9	46.4	8.4	26.0					8.0		12.2
Actuated g/C Ratio		0.34	1.00	0.18	0.56					0.17		0.26
v/c Ratio		0.41	0.19	0.36	0.58					0.09		0.17
Control Delay		13.4	0.3	21.2	7.3					17.2		5.8
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		13.4	0.3	21.2	7.3					17.2		5.8
LOS		B	A	C	A					B		A
Approach Delay		9.5			8.2							
Approach LOS		A			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 46.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 8.7 Intersection LOS: A
Intersection Capacity Utilization 51.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

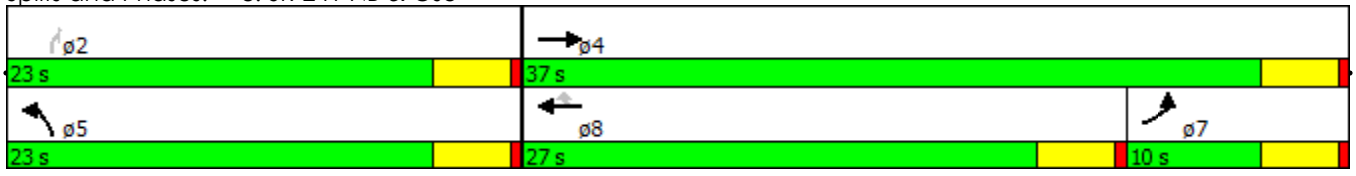


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	570	0	0	1300	240	430	0	40	0	0	0
Future Volume (vph)	160	570	0	0	1300	240	430	0	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						253			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	600	0	0	1368	253	453	0	42	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	10.0	37.0			27.0	27.0	23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.1	29.3			21.7	21.7	19.3		19.3			
Actuated g/C Ratio	0.11	0.52			0.38	0.38	0.34		0.34			
v/c Ratio	0.46	0.33			0.70	0.34	0.39		0.07			
Control Delay	29.9	8.2			17.5	3.5	16.7		1.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	29.9	8.2			17.5	3.5	16.7		1.1			
LOS	C	A			B	A	B		A			
Approach Delay		12.9			15.3							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 14.7 Intersection LOS: B
Intersection Capacity Utilization 51.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

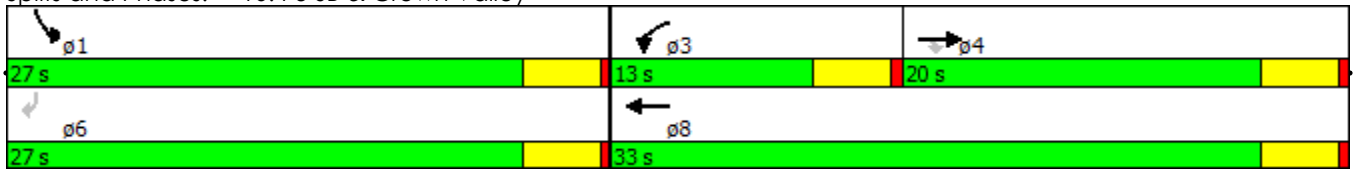


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1660	240	370	1220	0	0	0	0	1270	0	760
Future Volume (vph)	0	1660	240	370	1220	0	0	0	0	1270	0	760
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1747	253	389	1284	0	0	0	0	1337	0	800
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.87	0.43	0.76	0.52					0.70		0.71
Control Delay		27.1	5.4	35.9	11.7					18.0		18.0
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		27.1	5.4	35.9	11.7					18.0		18.0
LOS		C	A	D	B					B		B
Approach Delay		24.4			17.3							
Approach LOS		C			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 20.0		Intersection LOS: B	
Intersection Capacity Utilization 64.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 10: I-5 SB & Crown Valley

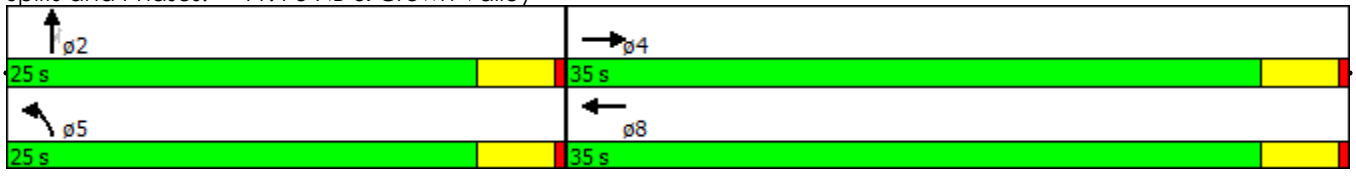


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	760	0	1330	1300	330	0	550	0	0	0
Future Volume (vph)	0	2100	760	0	1330	1300	330	0	550	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5917	1283	0	4570	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5917	1260	0	4570	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66	536		303	684		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			33%			50%	10%		47%			
Lane Group Flow (vph)	0	2475	536	0	2084	684	312	307	307	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.80	0.43		0.83	0.50	0.53	0.59	0.57			
Control Delay		14.1	1.1		14.1	1.3	19.6	20.5	19.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		14.1	1.1		14.1	1.3	19.6	20.5	19.9			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.8			11.0			20.0				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	520	490	40	450	600
Future Volume (vph)	130	520	490	40	450	600
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		547		42		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	547	516	42	474	632
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	16.1	25.9	16.1	36.1
Actuated g/C Ratio	0.18	0.18	0.30	0.48	0.30	0.67
v/c Ratio	0.42	0.76	0.93	0.05	0.90	0.51
Control Delay	23.3	10.1	47.9	2.2	44.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	10.1	47.9	2.2	44.0	7.0
LOS	C	B	D	A	D	A
Approach Delay	12.7		44.5			22.9
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1240	620
Future Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1240	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				467
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1243	0	11	1305	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		20.0	51.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.8	16.7		6.2	5.8		16.1	54.6		5.0	36.1	36.1
Actuated g/C Ratio	0.19	0.20		0.07	0.07		0.19	0.65		0.06	0.43	0.43
v/c Ratio	0.85	0.25		0.08	0.17		0.81	0.34		0.10	0.81	0.71
Control Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	26.9	10.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	48.3	1.4
Total Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	75.2	12.3
LOS	D	B		D	C		D	A		D	E	B
Approach Delay		42.4			32.9			16.2			54.2	
Approach LOS		D			C			B			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 83.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.4 Intersection LOS: D
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15

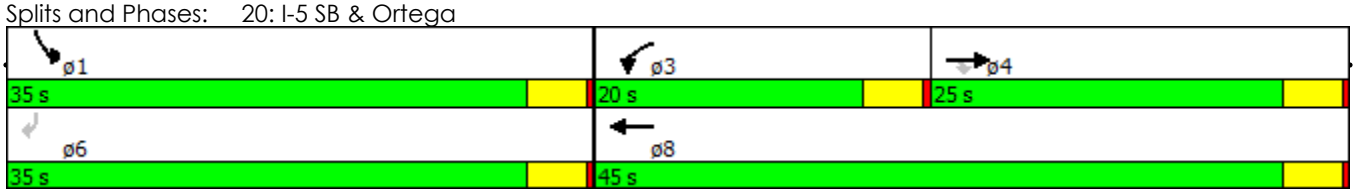
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1240	460	530	860	0	0	0	0	960	0	1010
Future Volume (vph)	0	1240	460	530	860	0	0	0	0	960	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421									210
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1305	484	558	905	0	0	0	0	1011	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.88	0.68	0.82	0.48					0.74		0.78
Control Delay		36.9	10.2	42.0	13.7					24.9		21.7
Queue Delay		2.5	0.0	0.0	0.5					0.0		0.0
Total Delay		39.4	10.2	42.0	14.2					24.9		21.7
LOS		D	B	D	B					C		C
Approach Delay		31.5			24.8							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 26.4 Intersection LOS: C
Intersection Capacity Utilization 84.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

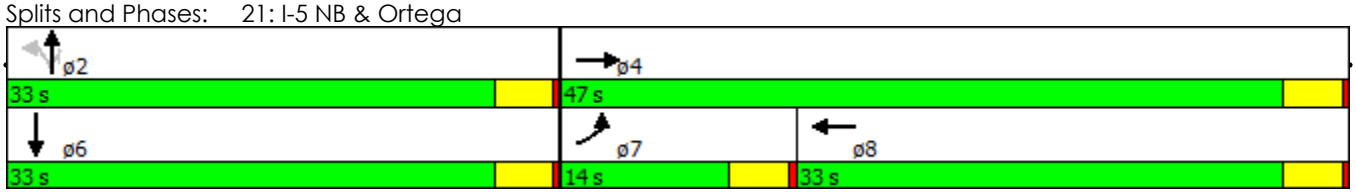


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1420	780	0	1910	10	280	10	750	0	0	10
Future Volume (vph)	10	1420	780	0	1910	10	280	10	750	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5367	1362	0	5529	0	0	1691	1583	0	1611	0
Flt Permitted	0.950							0.831				
Satd. Flow (perm)	1770	5367	1337	0	5529	0	0	1441	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		96	525		1			23	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			36%						33%			
Lane Group Flow (vph)	11	1791	525	0	2022	0	0	566	529	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	37.0	74.2		34.9			29.2	29.2		29.2	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.39	0.39		0.39	
v/c Ratio	0.08	0.66	0.39		0.78			0.98	0.80		0.01	
Control Delay	34.7	14.2	0.9		19.8			57.4	29.8		0.0	
Queue Delay	0.0	19.5	0.0		0.0			0.0	0.0		0.0	
Total Delay	34.7	33.6	0.9		19.8			57.4	29.8		0.0	
LOS	C	C	A		B			E	C		A	
Approach Delay		26.2			19.8			44.0			0.0	
Approach LOS		C			B			D			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 27.4 Intersection LOS: C
Intersection Capacity Utilization 81.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

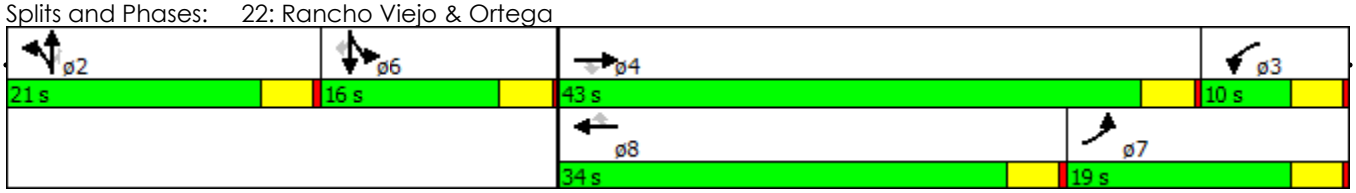


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1240	470	80	1720	440	280	160	40	220	190	120
Future Volume (vph)	270	1240	470	80	1720	440	280	160	40	220	190	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1853	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1853	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			439			460			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	284	1305	495	84	1811	463	295	168	42	209	223	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	19.0	43.0	43.0	10.0	34.0	34.0	21.0	21.0	21.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	41.0	41.0	6.0	30.0	30.0	17.0	17.0	17.0	12.0	12.0	12.0
Actuated g/C Ratio	0.17	0.46	0.46	0.07	0.33	0.33	0.19	0.19	0.19	0.13	0.13	0.13
v/c Ratio	0.96	0.78	0.55	0.71	0.99	0.56	0.44	0.48	0.10	0.89	0.90	0.36
Control Delay	83.2	25.6	5.4	73.7	49.9	5.2	34.7	37.8	0.5	75.6	77.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.2	25.6	5.4	73.7	49.9	5.2	34.7	37.8	0.5	75.6	77.4	6.5
LOS	F	C	A	E	D	A	C	D	A	E	E	A
Approach Delay		28.7			42.0			32.9			60.7	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 38.0 Intersection LOS: D
Intersection Capacity Utilization 85.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

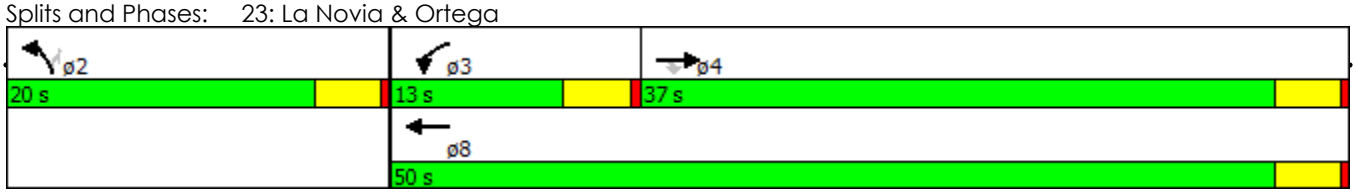


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1100	280	220	1950	340	200
Future Volume (vph)	1100	280	220	1950	340	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		273				211
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1158	295	232	2053	358	211
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	37.0	37.0	13.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	32.6	32.6	8.6	45.2	16.0	16.0
Actuated g/C Ratio	0.47	0.47	0.12	0.65	0.23	0.23
v/c Ratio	0.71	0.34	0.54	0.91	0.45	0.41
Control Delay	17.6	3.3	33.8	17.9	25.2	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	3.3	33.8	17.9	25.2	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.7			19.5	18.3	
Approach LOS	B			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 73.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

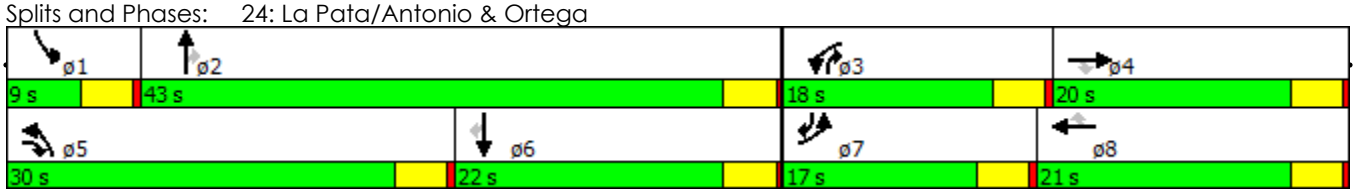


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	160	770	260	420	10	720	760	170	10	1020	790
Future Volume (vph)	400	160	770	260	420	10	720	760	170	10	1020	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			179			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	421	168	811	274	442	11	758	800	179	11	1074	832
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	30.0	18.0	21.0	21.0	30.0	43.0	18.0	9.0	22.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	12.9	14.0	40.0	14.0	15.0	15.0	26.0	46.3	60.3	5.0	18.0	31.0
Actuated g/C Ratio	0.15	0.16	0.45	0.16	0.17	0.17	0.30	0.53	0.69	0.06	0.20	0.35
v/c Ratio	0.81	0.29	1.10	0.98	0.71	0.03	0.72	0.27	0.16	0.11	0.94	0.73
Control Delay	50.3	33.8	85.1	87.1	41.2	0.1	32.8	12.6	1.3	42.9	51.2	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	33.8	85.1	87.1	41.2	0.1	32.8	12.6	1.3	42.9	51.2	24.1
LOS	D	C	F	F	D	A	C	B	A	D	D	C
Approach Delay		68.5			57.9			20.3			39.4	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 43.0 Intersection LOS: D
Intersection Capacity Utilization 93.7% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

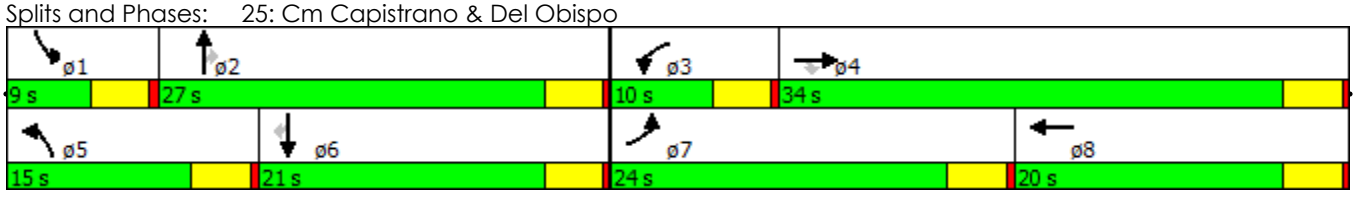


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Future Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			346		5				177			453
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	547	432	137	526	0	474	442	126	32	284	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	34.0	34.0	10.0	20.0		15.0	27.0	27.0	9.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.7	28.7	28.7	6.0	15.0		11.0	28.5	28.5	5.0	17.0	17.0
Actuated g/C Ratio	0.25	0.36	0.36	0.08	0.19		0.14	0.36	0.36	0.06	0.22	0.22
v/c Ratio	0.93	0.42	0.56	0.52	0.78		0.99	0.66	0.19	0.29	0.71	0.66
Control Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
LOS	E	B	A	D	D		E	C	A	D	D	A
Approach Delay		27.8			40.0			46.7			21.5	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 33.8		Intersection LOS: C	
Intersection Capacity Utilization 76.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

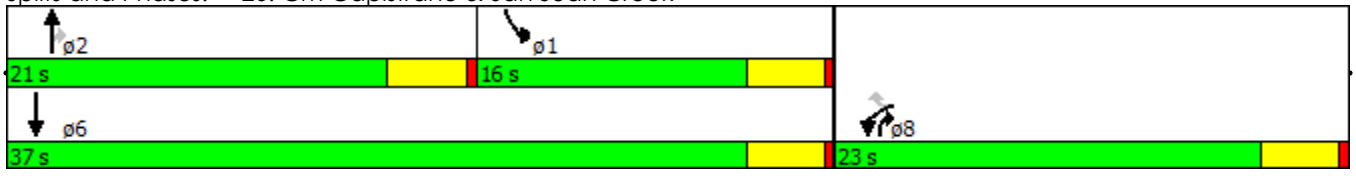


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	710	540	510	640	520	550
Future Volume (vph)	710	540	510	640	520	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	350		20		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	906	409	537	674	547	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	21.0	23.0	16.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.6	18.6	17.0	35.6	12.0	33.0
Actuated g/C Ratio	0.31	0.31	0.29	0.60	0.20	0.55
v/c Ratio	0.84	0.61	0.53	0.72	0.79	0.30
Control Delay	27.4	7.9	20.4	11.4	33.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	7.9	20.4	11.4	33.1	7.7
LOS	C	A	C	B	C	A
Approach Delay	21.3		15.4			20.1
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	640	350	800	50	560	700
Future Volume (vph)	640	350	800	50	560	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		368		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	674	368	842	53	589	737
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	19.0		24.0		17.0	41.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	14.5	59.5	20.4	59.5	12.7	37.0
Actuated g/C Ratio	0.24	1.00	0.34	1.00	0.21	0.62
v/c Ratio	0.81	0.23	0.70	0.03	0.81	0.33
Control Delay	30.4	0.3	20.8	0.0	32.9	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	0.3	20.8	0.0	32.9	6.0
LOS	C	A	C	A	C	A
Approach Delay	19.8		19.6			17.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	860	390	340
Future Volume (vph)	520	630	240	860	390	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.649	0.950	
Satd. Flow (perm)	1863	1493	0	2297	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				284
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1158	411	358
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	38.0	38.0	38.0	38.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.2	32.2		32.2	18.1	18.1
Actuated g/C Ratio	0.55	0.55		0.55	0.31	0.31
v/c Ratio	0.53	0.59		0.91	0.75	0.52
Control Delay	10.5	3.1		24.9	29.8	7.6
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	10.5	3.1		24.9	29.8	7.6
LOS	B	A		C	C	A
Approach Delay	6.4			24.9	19.4	
Approach LOS	A			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 89.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Future Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				537
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	452	84	0	337	158	105	232	0	0	369	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	21.0	21.0	21.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		16.6	16.6		12.6	12.6	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.28	0.28		0.21	0.21	0.30	0.30			0.30	0.30
v/c Ratio		0.91	0.17		0.85	0.34	0.54	0.41			0.71	0.63
Control Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
LOS		D	A		D	A	C	B			C	A
Approach Delay		39.8			32.9			22.6			14.7	
Approach LOS		D			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

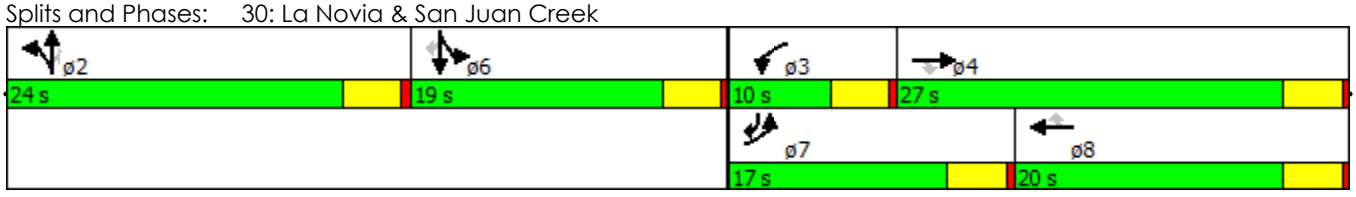
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Future Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			284			177			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	126	95	53	221	284	137	263	42	179	168	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	27.0	27.0	10.0	20.0	20.0	24.0	24.0	24.0	19.0	19.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.0	22.5	22.5	5.9	13.2	13.2	20.1	20.1	20.1	15.1	15.1	30.0
Actuated g/C Ratio	0.15	0.30	0.30	0.08	0.18	0.18	0.27	0.27	0.27	0.20	0.20	0.40
v/c Ratio	0.61	0.23	0.17	0.38	0.68	0.58	0.29	0.53	0.08	0.51	0.45	0.37
Control Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
LOS	D	C	A	D	D	A	C	C	A	C	C	A
Approach Delay		25.7			24.7			25.5			19.4	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 30: La Novia & San Juan Creek

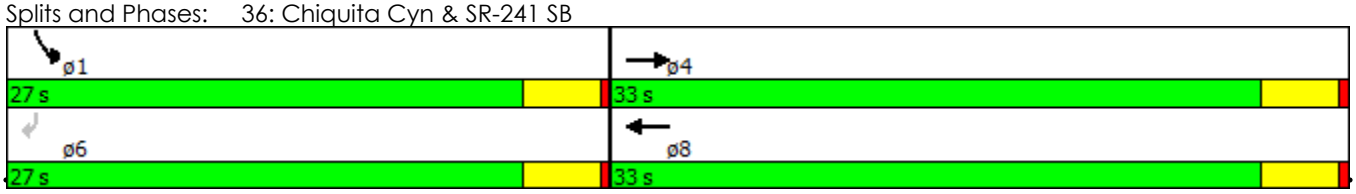


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↰	↱
Traffic Volume (vph)	0	450	140	0	280	170
Future Volume (vph)	0	450	140	0	280	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						179
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	474	147	0	295	179
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		33.0	33.0		27.0	27.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		17.4	17.4		19.6	23.3
Actuated g/C Ratio		0.36	0.36		0.40	0.48
v/c Ratio		0.71	0.22		0.42	0.21
Control Delay		19.7	11.1		12.4	2.9
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		19.7	11.1		12.4	2.9
LOS		B	B		B	A
Approach Delay		19.7	11.1		8.8	
Approach LOS		B	B		A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 48.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 63.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	330	400	140	590	0	0
Future Volume (vph)	330	400	140	590	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				201		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	347	421	147	621	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	22.0	60.0	38.0	38.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	13.2	42.0	19.9	19.9		
Actuated g/C Ratio	0.31	1.00	0.47	0.47		
v/c Ratio	0.62	0.23	0.17	0.76		
Control Delay	20.1	0.3	6.7	13.1		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	20.1	0.3	6.7	13.1		
LOS	C	A	A	B		
Approach Delay		9.2	11.9			
Approach LOS		A	B			

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 42			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 63.4%		ICU Level of Service B	
Analysis Period (min) 15			

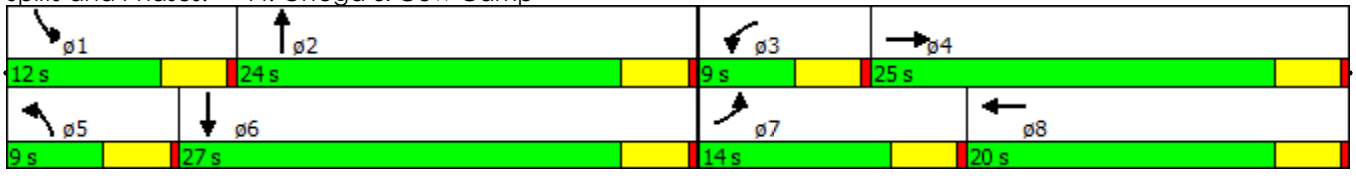
Splits and Phases: 37: Grandeza & SR-241 NB

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	490	830	10	40	250	20	10	80	210	90	610	630
Future Volume (vph)	490	830	10	40	250	20	10	80	210	90	610	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3674	0	1770	3229	0	1770	3376	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3674	0	1770	3229	0	1770	3376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			12			221			397	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	516	885	0	42	284	0	11	305	0	95	1305	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	14.0	25.0		9.0	20.0		9.0	24.0		12.0	27.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	10.1	21.6		5.1	12.5		5.1	21.0		7.4	28.4	
Actuated g/C Ratio	0.16	0.33		0.08	0.19		0.08	0.32		0.11	0.44	
v/c Ratio	0.93	0.71		0.30	0.40		0.08	0.26		0.47	0.77	
Control Delay	56.7	24.3		36.8	23.7		31.8	6.7		37.1	16.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	56.7	24.3		36.8	23.7		31.8	6.7		37.1	16.0	
LOS	E	C		D	C		C	A		D	B	
Approach Delay		36.3			25.4			7.6			17.4	
Approach LOS		D			C			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 64.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 24.9 Intersection LOS: C
Intersection Capacity Utilization 83.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 44: Ortega & Cow Camp

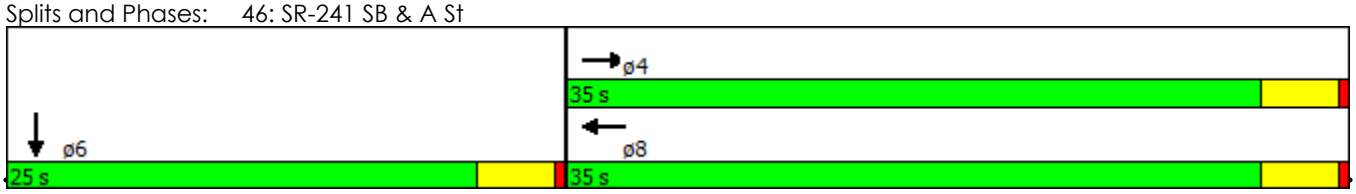


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	190	180	0	90	0	0	0	0	0	0	300
Future Volume (vph)	0	190	180	0	90	0	0	0	0	0	0	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1740	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1740	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		117									782	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	389	0	0	95	0	0	0	0	0	316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		12.1			12.1						21.2	
Actuated g/C Ratio		0.29			0.29						0.51	
v/c Ratio		0.66			0.17						0.26	
Control Delay		14.3			11.0						0.5	
Queue Delay		0.0			0.0						0.0	
Total Delay		14.3			11.0						0.5	
LOS		B			B						A	
Approach Delay		14.3			11.0						0.5	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 41.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 8.5 Intersection LOS: A
Intersection Capacity Utilization 46.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 46: SR-241 SB & A St



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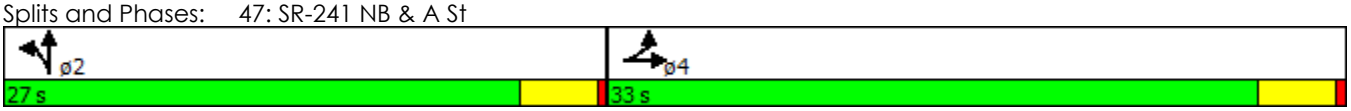
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	0	0	0	0	0	90	0	0	0	0	0
Future Volume (vph)	190	0	0	0	0	0	90	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	0	0	0	0	0	95	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	33.0	33.0					27.0	27.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	10.1						29.3					
Actuated g/C Ratio	0.23						0.66					
v/c Ratio	0.49						0.08					
Control Delay	18.6						5.0					
Queue Delay	0.0						0.0					
Total Delay	18.6						5.0					
LOS	B						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 44.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 46.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

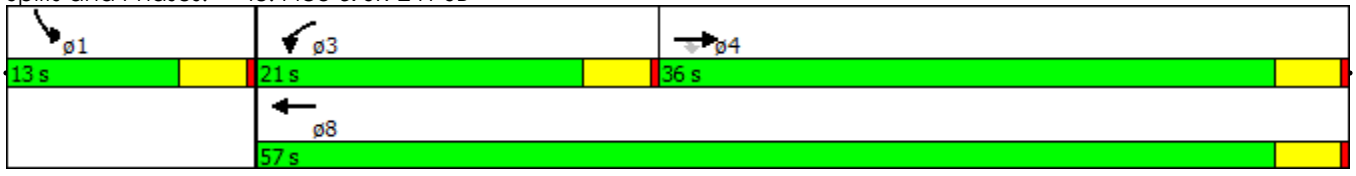


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	990	210	180	1300	0	0	0	0	50	0	560
Future Volume (vph)	0	990	210	180	1300	0	0	0	0	50	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									253
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1042	221	189	1368	0	0	0	0	53	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		36.0	36.0	21.0	57.0					13.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		27.6	27.6	12.6	40.5					8.7		47.9
Actuated g/C Ratio		0.58	0.58	0.26	0.85					0.18		1.00
v/c Ratio		0.51	0.23	0.41	0.46					0.17		0.37
Control Delay		11.8	2.6	23.1	3.0					26.4		0.7
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		11.8	2.6	23.1	3.0					26.4		0.7
LOS		B	A	C	A					C		A
Approach Delay		10.2			5.5							
Approach LOS		B			A							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 47.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 50.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB

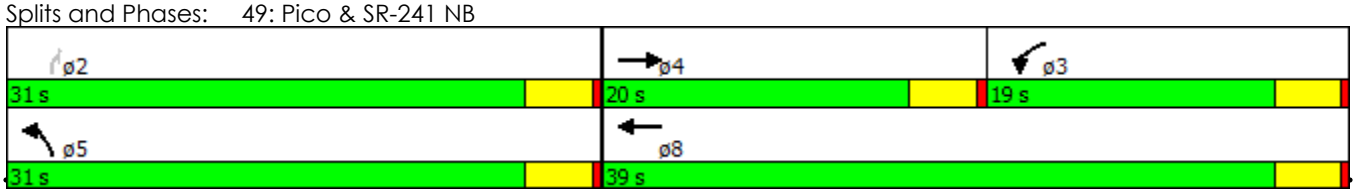


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	510	530	220	1040	0	440	0	110	0	0	0
Future Volume (vph)	0	510	530	220	1040	0	440	0	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			558						116			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	537	558	232	1095	0	463	0	116	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		20.0		19.0	39.0		31.0		31.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		14.1	66.0	12.7	30.8		27.1		27.1			
Actuated g/C Ratio		0.21	1.00	0.19	0.47		0.41		0.41			
v/c Ratio		0.71	0.36	0.68	0.66		0.64		0.16			
Control Delay		30.1	0.7	36.2	15.7		21.5		3.9			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		30.1	0.7	36.2	15.7		21.5		3.9			
LOS		C	A	D	B		C		A			
Approach Delay		15.1			19.3							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 17.5 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB



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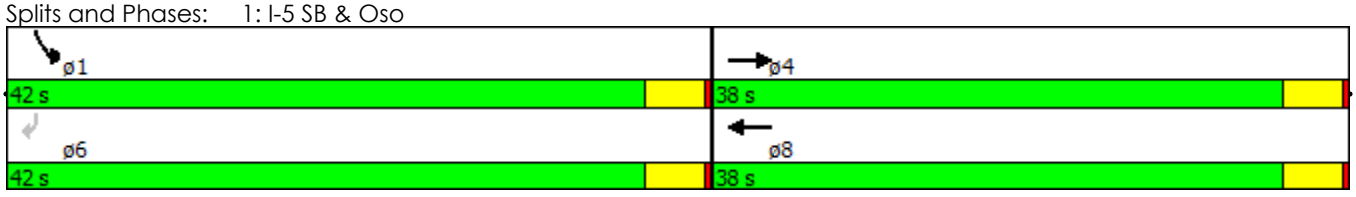
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1730	600	0	1420	610	0	0	0	1220	0	420
Future Volume (vph)	0	1730	600	0	1420	610	0	0	0	1220	0	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469			642						15
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1821	632	0	1495	642	0	0	0	1284	0	442
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		38.0			38.0					42.0		42.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		33.6	79.6		33.6	79.6				38.0		38.0
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.48		0.48
v/c Ratio		0.85	0.41		0.70	0.41				0.78		0.33
Control Delay		25.5	0.8		20.9	0.8				21.7		13.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		25.5	0.8		20.9	0.8				21.7		13.4
LOS		C	A		C	A				C		B
Approach Delay		19.1			14.9							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

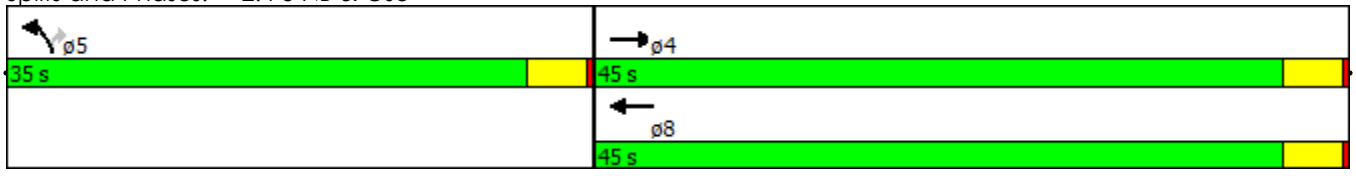


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Future Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190			684			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2663	421	0	1558	684	568	0	684	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		45.0			45.0		35.0		35.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		41.0	80.0		41.0	80.0	31.0		31.0			
Actuated g/C Ratio		0.51	1.00		0.51	1.00	0.39		0.39			
v/c Ratio		1.02	0.27		0.60	0.43	0.43		1.10			
Control Delay		44.2	0.4		14.9	0.9	19.2		93.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.2	0.4		14.9	0.9	19.2		93.1			
LOS		D	A		B	A	B		F			
Approach Delay		38.3			10.6							
Approach LOS		D			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 32.9 Intersection LOS: C
Intersection Capacity Utilization 95.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	780	580	100	1000	0	0	0	0	180	0	60
Future Volume (vph)	0	780	580	100	1000	0	0	0	0	180	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			611									111
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	611	105	1053	0	0	0	0	189	0	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		17.0	42.0					18.0	18.0	18.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		15.0	45.3	8.4	22.1					12.5		14.7
Actuated g/C Ratio		0.33	1.00	0.19	0.49					0.28		0.32
v/c Ratio		0.49	0.39	0.32	0.42					0.20		0.11
Control Delay		14.1	0.7	21.3	7.2					15.2		2.1
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		14.1	0.7	21.3	7.2					15.2		2.1
LOS		B	A	C	A					B		A
Approach Delay		8.4			8.5							
Approach LOS		A			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			

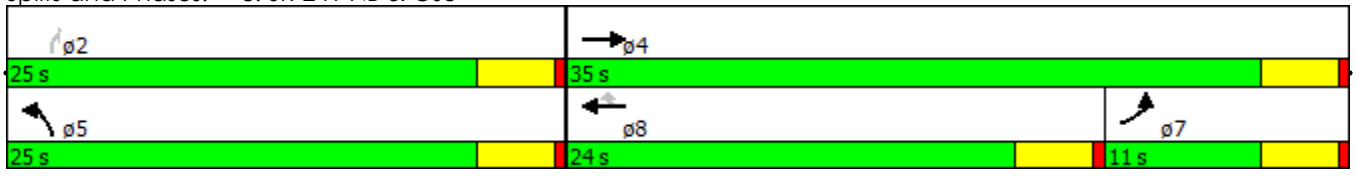
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	940	0	0	650	70	450	0	100	0	0	0
Future Volume (vph)	50	940	0	0	650	70	450	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	989	0	0	684	74	474	0	105	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	11.0	35.0			24.0	24.0	25.0		25.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.2	21.2			17.4	17.4	21.3		21.3			
Actuated g/C Ratio	0.12	0.42			0.34	0.34	0.42		0.42			
v/c Ratio	0.13	0.67			0.39	0.13	0.33		0.15			
Control Delay	22.6	13.9			14.2	3.8	12.0		4.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	22.6	13.9			14.2	3.8	12.0		4.9			
LOS	C	B			B	A	B		A			
Approach Delay		14.3			13.2							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

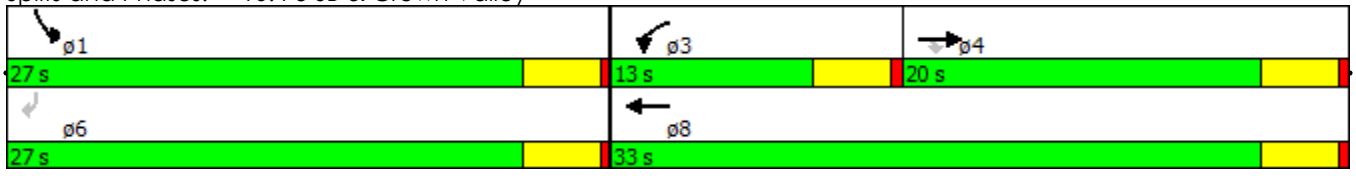


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1800	330	490	1380	0	0	0	0	1500	0	1060
Future Volume (vph)	0	1800	330	490	1380	0	0	0	0	1500	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			347									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1895	347	516	1453	0	0	0	0	1579	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.94	0.52	1.00	0.59					0.83		0.99
Control Delay		33.3	5.7	70.0	12.5					21.5		44.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		33.3	5.7	70.0	12.5					21.5		44.9
LOS		C	A	E	B					C		D
Approach Delay		29.0			27.5							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 29.4 Intersection LOS: C
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2630	580	0	1660	1560	240	0	450	0	0	0
Future Volume (vph)	0	2630	580	0	1660	1560	240	0	450	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4575	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4575	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11	447		339	821		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2829	550	0	2568	821	228	253	246	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		39.0			39.0		21.0	21.0	21.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		35.0	60.0		35.0	60.0	17.0	17.0	17.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.28	0.28	0.28			
v/c Ratio		0.81	0.44		0.91	0.60	0.48	0.59	0.56			
Control Delay		12.1	1.1		16.5	2.0	21.9	23.9	22.7			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		12.1	1.1		16.5	2.0	21.9	23.9	22.7			
LOS		B	A		B	A	C	C	C			
Approach Delay		10.3			13.0			22.9				
Approach LOS		B			B			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 12.7 Intersection LOS: B
Intersection Capacity Utilization 66.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	480	90	370	560
Future Volume (vph)	160	490	480	90	370	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		516		95		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	505	95	389	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	22.0	20.0	18.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	18.1	28.6	14.1	36.1
Actuated g/C Ratio	0.19	0.19	0.33	0.52	0.26	0.66
v/c Ratio	0.49	0.74	0.82	0.11	0.85	0.48
Control Delay	24.5	9.4	31.8	1.6	42.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	9.4	31.8	1.6	42.0	6.9
LOS	C	A	C	A	D	A
Approach Delay	13.1		27.0			20.8
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	640	10	150	10	10	10	160	1190	10	10	960	820
Future Volume (vph)	640	10	150	10	10	10	160	1190	10	10	960	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			2				610
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	674	169	0	11	22	0	168	1264	0	11	1011	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		20.0	68.0		9.0	57.0	57.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.4	26.9		8.0	6.2		16.1	71.7		5.0	53.3	53.3
Actuated g/C Ratio	0.22	0.24		0.07	0.05		0.14	0.63		0.04	0.47	0.47
v/c Ratio	0.87	0.35		0.09	0.21		0.67	0.39		0.14	0.61	0.84
Control Delay	55.8	10.2		49.8	40.2		61.6	11.8		59.4	25.1	16.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	18.4	8.0
Total Delay	55.8	10.2		49.8	40.2		61.6	11.8		59.4	43.6	24.8
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		46.7			43.4			17.7			35.1	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 113
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 31.5 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15

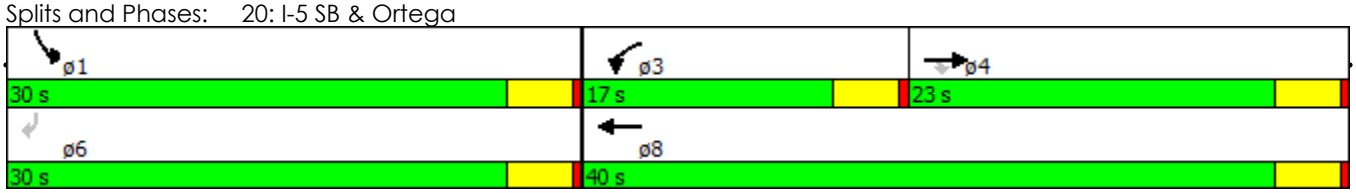
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1370	450	580	770	0	0	0	0	1210	0	1010
Future Volume (vph)	0	1370	450	580	770	0	0	0	0	1210	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			431									273
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1442	474	611	811	0	0	0	0	1274	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	17.0	40.0					30.0		30.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		19.0	19.0	13.0	36.0					26.0		26.0
Actuated g/C Ratio		0.27	0.27	0.19	0.51					0.37		0.37
v/c Ratio		0.95	0.65	0.94	0.42					0.98		0.79
Control Delay		40.5	8.4	53.7	11.4					44.1		19.5
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		40.5	8.4	53.7	11.4					44.1		19.5
LOS		D	A	D	B					D		B
Approach Delay		32.6			29.6							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 32.0 Intersection LOS: C
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

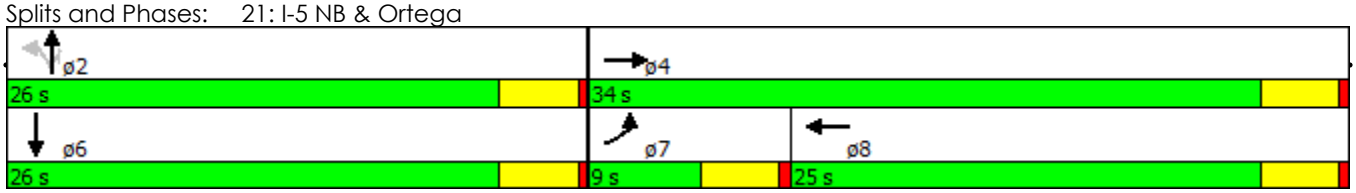


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1840	750	0	1880	10	220	10	650	0	0	10
Future Volume (vph)	10	1840	750	0	1880	10	220	10	650	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5451	1583	0	5529	0	0	1685	1583	0	1611	0
Flt Permitted	0.950							0.840				
Satd. Flow (perm)	1770	5451	1555	0	5529	0	0	1450	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41	608		2			4	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			23%						34%			
Lane Group Flow (vph)	11	2118	608	0	1990	0	0	476	451	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.0	60.0		28.2			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.37	0.37		0.37	
v/c Ratio	0.07	0.77	0.39		0.77			0.89	0.71		0.02	
Control Delay	26.7	14.4	0.7		17.7			40.7	20.3		0.0	
Queue Delay	0.0	47.8	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.7	62.2	0.7		17.7			40.7	20.3		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		48.4			17.7			30.8			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.6 Intersection LOS: C
Intersection Capacity Utilization 80.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

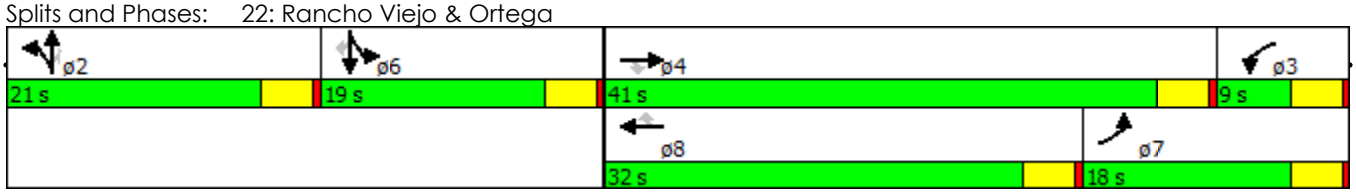


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1380	380	70	1210	250	460	130	50	380	150	160
Future Volume (vph)	200	1380	380	70	1210	250	460	130	50	380	150	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			306			263			158			168
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	211	1453	400	74	1274	263	484	137	53	276	282	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	18.0	41.0	41.0	9.0	32.0	32.0	21.0	21.0	21.0	19.0	19.0	19.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.2	37.1	37.1	5.0	26.9	26.9	17.0	17.0	17.0	15.0	15.0	15.0
Actuated g/C Ratio	0.15	0.42	0.42	0.06	0.30	0.30	0.19	0.19	0.19	0.17	0.17	0.17
v/c Ratio	0.80	0.95	0.50	0.74	0.76	0.40	0.71	0.38	0.13	0.92	0.91	0.41
Control Delay	59.4	39.4	7.3	82.9	31.3	5.1	40.2	35.4	0.6	72.9	71.4	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	39.4	7.3	82.9	31.3	5.1	40.2	35.4	0.6	72.9	71.4	9.0
LOS	E	D	A	F	C	A	D	D	A	E	E	A
Approach Delay		35.2			29.4			36.1			57.5	
Approach LOS		D			C			D			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 36.7 Intersection LOS: D
Intersection Capacity Utilization 83.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

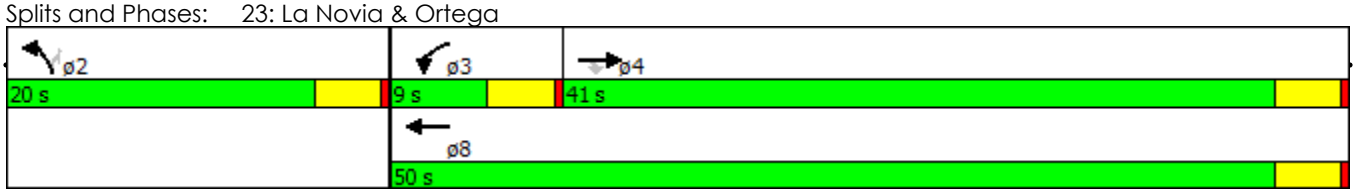


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1650	290	200	1320	250	150
Future Volume (vph)	1650	290	200	1320	250	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		211				139
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1737	305	211	1389	263	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	41.0	41.0	9.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	37.0	37.0	5.0	46.0	16.0	16.0
Actuated g/C Ratio	0.53	0.53	0.07	0.66	0.23	0.23
v/c Ratio	0.95	0.34	0.86	0.61	0.34	0.35
Control Delay	28.8	4.2	65.9	8.3	24.0	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	4.2	65.9	8.3	24.0	8.4
LOS	C	A	E	A	C	A
Approach Delay	25.1			15.9	18.1	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 74.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

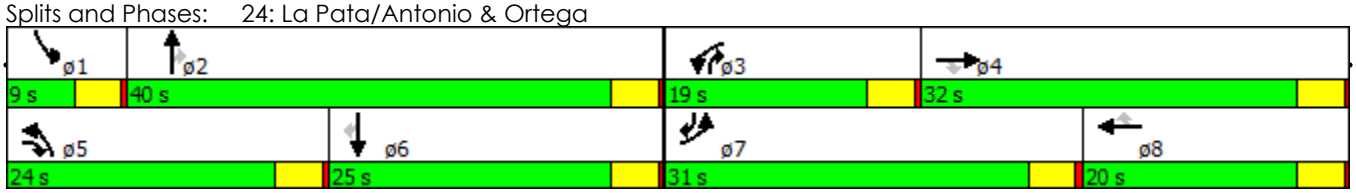


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	650	620	390	140	220	10	480	660	260	10	730	660
Future Volume (vph)	650	620	390	140	220	10	480	660	260	10	730	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92			185			98			142
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	684	653	411	147	232	11	505	695	274	11	768	695
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	31.0	32.0	24.0	19.0	20.0	20.0	24.0	40.0	19.0	9.0	25.0	31.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	23.2	22.5	40.0	12.1	11.4	11.4	17.5	41.2	53.3	5.1	21.3	44.5
Actuated g/C Ratio	0.26	0.25	0.45	0.14	0.13	0.13	0.20	0.46	0.59	0.06	0.24	0.50
v/c Ratio	0.75	0.71	0.56	0.62	0.50	0.03	0.73	0.27	0.29	0.11	0.58	0.44
Control Delay	36.7	35.9	15.1	49.8	41.3	0.2	41.5	16.7	6.2	47.1	33.7	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	35.9	15.1	49.8	41.3	0.2	41.5	16.7	6.2	47.1	33.7	11.1
LOS	D	D	B	D	D	A	D	B	A	D	C	B
Approach Delay		31.3			43.4			23.3			23.1	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 89.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 27.5 Intersection LOS: C
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

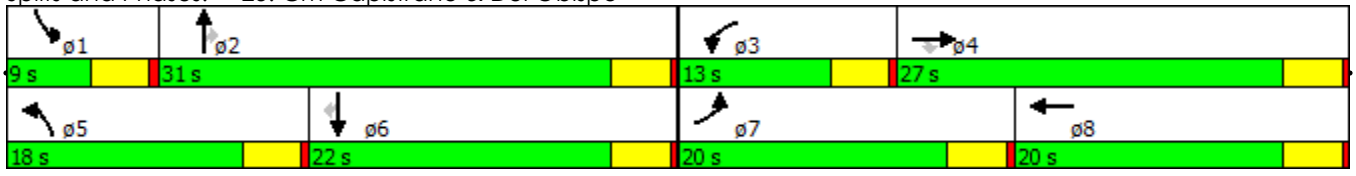


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Future Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3468	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3468	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			365		12				205			348
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	358	505	453	295	695	0	589	484	221	63	316	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	20.0	27.0	27.0	13.0	20.0		18.0	31.0	31.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.0	23.0	23.0	9.0	16.0		14.0	28.8	28.8	5.0	18.0	18.0
Actuated g/C Ratio	0.20	0.29	0.29	0.11	0.20		0.18	0.36	0.36	0.06	0.22	0.22
v/c Ratio	1.01	0.50	0.65	0.76	0.99		0.98	0.72	0.33	0.57	0.75	0.62
Control Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
LOS	F	C	B	D	E		E	C	A	E	D	A
Approach Delay		36.8			60.0			43.1			27.2	
Approach LOS		D			E			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 42.2		Intersection LOS: D	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

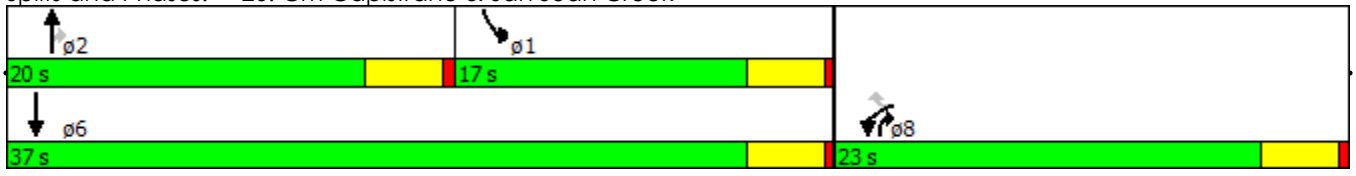


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	810	620	510	550	590	660
Future Volume (vph)	810	620	510	550	590	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46	353		17		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1036	470	537	579	621	695
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	20.0	23.0	17.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.0	19.0	16.0	35.0	13.0	33.0
Actuated g/C Ratio	0.32	0.32	0.27	0.58	0.22	0.55
v/c Ratio	0.95	0.69	0.57	0.63	0.84	0.36
Control Delay	39.1	11.0	21.8	9.6	34.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	11.0	21.8	9.6	34.8	8.2
LOS	D	B	C	A	C	A
Approach Delay	30.4		15.5			20.8
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 22.9 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

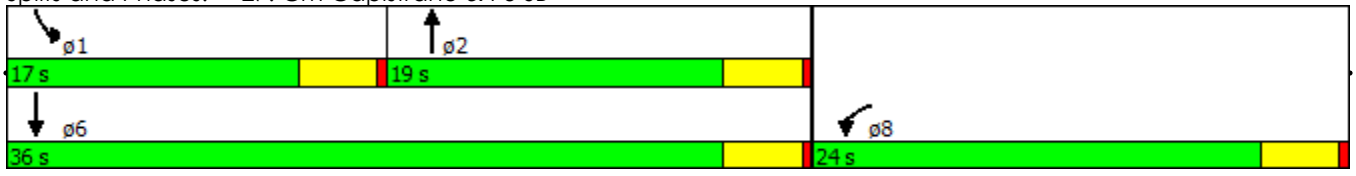


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	940	460	600	50	600	880
Future Volume (vph)	940	460	600	50	600	880
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		484		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	989	484	632	53	632	926
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		19.0		17.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	19.4	59.4	15.2	59.4	12.8	32.0
Actuated g/C Ratio	0.33	1.00	0.26	1.00	0.22	0.54
v/c Ratio	0.88	0.31	0.70	0.03	0.85	0.49
Control Delay	30.5	0.5	25.1	0.0	36.0	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	0.5	25.1	0.0	36.0	9.8
LOS	C	A	C	A	D	A
Approach Delay	20.6		23.2			20.4
Approach LOS	C		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

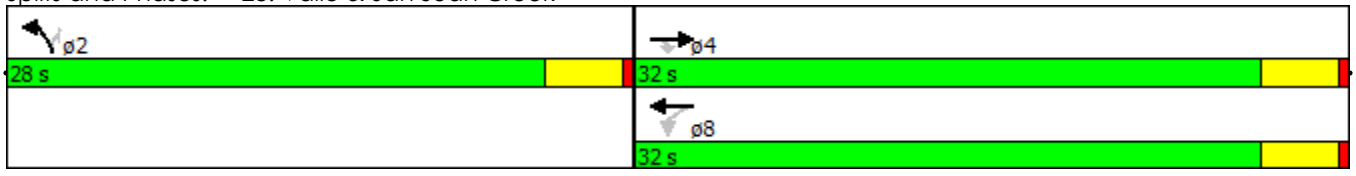


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	560	580	130	870	570	240
Future Volume (vph)	560	580	130	870	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.664	0.950	
Satd. Flow (perm)	1863	1493	0	2350	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				186
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	589	611	0	1053	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.0	28.0		28.0	24.0	24.0
Actuated g/C Ratio	0.47	0.47		0.47	0.40	0.40
v/c Ratio	0.68	0.60		0.96	0.85	0.34
Control Delay	17.4	3.8		37.3	30.5	5.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.4	3.8		37.3	30.5	5.4
LOS	B	A		D	C	A
Approach Delay	10.5			37.3	23.1	
Approach LOS	B			D	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 98.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

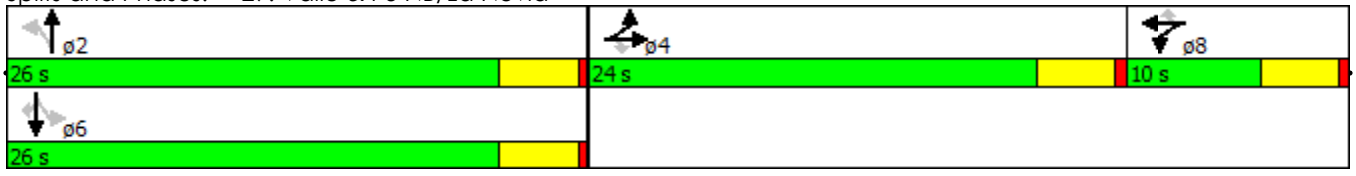


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Future Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1827	1583
Flt Permitted		0.961			0.991		0.445				0.623	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	829	1819	0	0	1160	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		12				400
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	495	74	0	116	116	189	368	0	0	348	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	10.0	10.0	10.0	26.0	26.0		26.0	26.0	26.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.4	18.4		6.1	6.1	22.4	22.4			22.4	22.4
Actuated g/C Ratio		0.33	0.33		0.11	0.11	0.40	0.40			0.40	0.40
v/c Ratio		0.85	0.13		0.58	0.42	0.58	0.51			0.76	0.46
Control Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
LOS		C	A		D	B	C	B			C	A
Approach Delay		30.8			26.0			19.7			16.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Future Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			274
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	105	21	105	105	274	95	200	11	211	263	274
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	14.0	20.0	20.0	14.0	20.0	20.0	23.0	23.0	23.0	23.0	23.0	14.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.9	12.2	12.2	8.7	9.8	9.8	19.1	19.1	19.1	19.1	19.1	32.0
Actuated g/C Ratio	0.12	0.17	0.17	0.12	0.13	0.13	0.26	0.26	0.26	0.26	0.26	0.44
v/c Ratio	0.54	0.34	0.06	0.50	0.42	0.63	0.21	0.41	0.02	0.46	0.54	0.32
Control Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.3			22.3			24.8			19.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 72.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

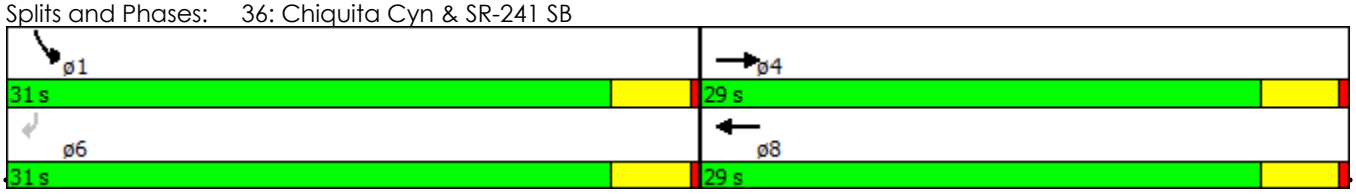
Splits and Phases: 30: La Novia & San Juan Creek

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	570	170	0	550	600
Future Volume (vph)	0	570	170	0	550	600
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						629
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	600	179	0	579	632
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		29.0	29.0		31.0	31.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		21.8	21.8		27.2	27.2
Actuated g/C Ratio		0.38	0.38		0.48	0.48
v/c Ratio		0.84	0.25		0.69	0.58
Control Delay		28.6	12.7		18.1	3.6
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		28.6	12.7		18.1	3.6
LOS		C	B		B	A
Approach Delay		28.6	12.7		10.6	
Approach LOS		C	B		B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 16.2		Intersection LOS: B	
Intersection Capacity Utilization 67.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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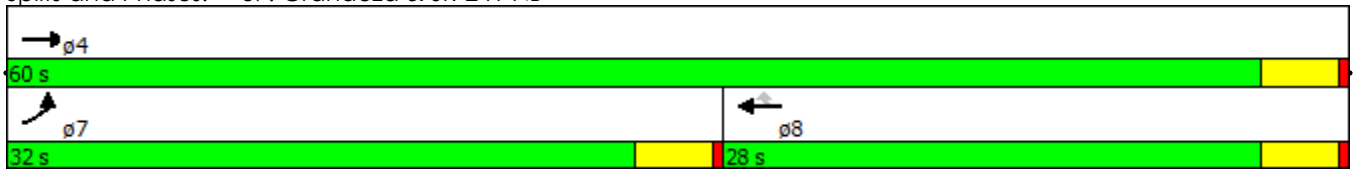
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	410	720	170	330	0	0
Future Volume (vph)	410	720	170	330	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				293		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	432	758	179	347	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	32.0	60.0	28.0	28.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	12.8	30.8	9.5	9.5		
Actuated g/C Ratio	0.42	1.00	0.31	0.31		
v/c Ratio	0.59	0.41	0.31	0.52		
Control Delay	11.1	0.7	10.6	5.8		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	11.1	0.7	10.6	5.8		
LOS	B	A	B	A		
Approach Delay		4.5	7.4			
Approach LOS		A	A			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 30.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 5.4 Intersection LOS: A
Intersection Capacity Utilization 67.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 37: Grandeza & SR-241 NB

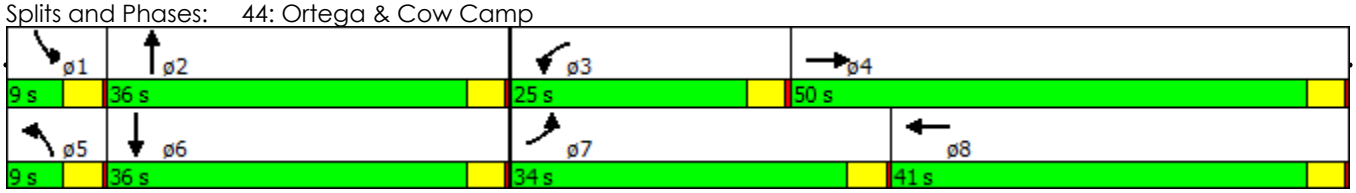


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	770	390	10	190	930	100	10	750	60	30	120	630
Future Volume (vph)	770	390	10	190	930	100	10	750	60	30	120	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3705	0	1770	3650	0	1770	3669	0	1770	3103	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3705	0	1770	3650	0	1770	3669	0	1770	3103	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			10			7			440	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	811	422	0	200	1084	0	11	852	0	32	789	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	34.0	50.0		25.0	41.0		9.0	36.0		9.0	36.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	28.7	47.8		17.3	36.3		5.0	32.1		5.0	35.6	
Actuated g/C Ratio	0.25	0.42		0.15	0.32		0.04	0.28		0.04	0.31	
v/c Ratio	0.91	0.27		0.75	0.93		0.14	0.82		0.42	0.86dr	
Control Delay	57.8	23.5		64.8	52.5		59.7	46.9		72.0	17.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	57.8	23.5		64.8	52.5		59.7	46.9		72.0	17.0	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		46.0			54.5			47.1			19.1	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 114.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 43.6 Intersection LOS: D
Intersection Capacity Utilization 86.4% ICU Level of Service E
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 44: Ortega & Cow Camp

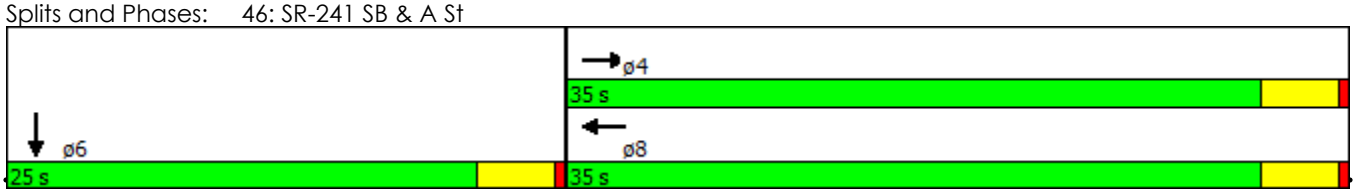


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	190	160	0	120	0	0	0	0	0	0	230
Future Volume (vph)	0	190	160	0	120	0	0	0	0	0	0	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1747	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1747	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		104									724	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	368	0	0	126	0	0	0	0	0	242	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		11.8			11.8						21.2	
Actuated g/C Ratio		0.29			0.29						0.52	
v/c Ratio		0.64			0.24						0.20	
Control Delay		14.3			11.8						0.4	
Queue Delay		0.0			0.0						0.0	
Total Delay		14.3			11.8						0.4	
LOS		B			B						A	
Approach Delay		14.3			11.8						0.4	
Approach LOS		B			B						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 41			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 9.3		Intersection LOS: A	
Intersection Capacity Utilization 40.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 46: SR-241 SB & A St



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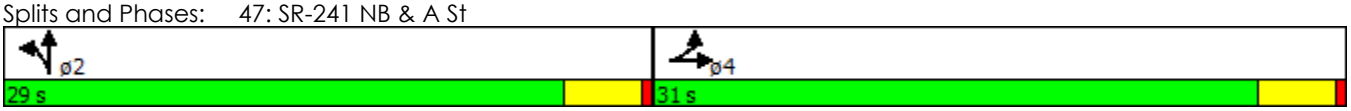
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	0	0	0	0	0	120	0	0	0	0	0
Future Volume (vph)	190	0	0	0	0	0	120	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	0	0	0	0	0	126	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	31.0	31.0					29.0	29.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	10.4						31.2					
Actuated g/C Ratio	0.22						0.67					
v/c Ratio	0.51						0.11					
Control Delay	19.9						5.0					
Queue Delay	0.0						0.0					
Total Delay	19.9						5.0					
LOS	B						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 46.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 40.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

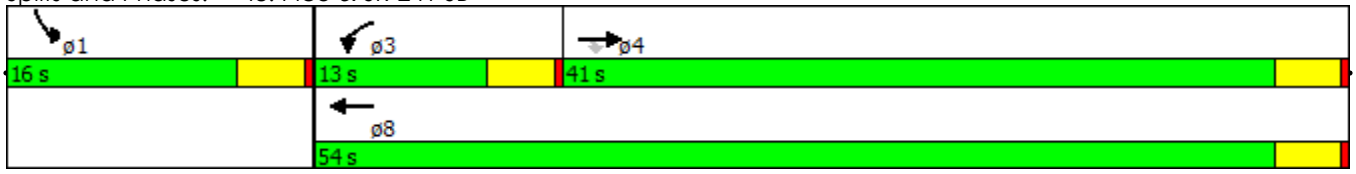


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1730	710	190	740	0	0	0	0	240	0	510
Future Volume (vph)	0	1730	710	190	740	0	0	0	0	240	0	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			662									435
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1821	747	200	779	0	0	0	0	253	0	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		41.0	41.0	13.0	54.0					16.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		37.0	37.0	9.0	50.0					11.8		69.8
Actuated g/C Ratio		0.53	0.53	0.13	0.72					0.17		1.00
v/c Ratio		0.97	0.67	0.88	0.31					0.85		0.34
Control Delay		32.4	5.0	68.5	4.0					55.8		0.6
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		32.4	5.0	68.5	4.0					55.8		0.6
LOS		C	A	E	A					E		A
Approach Delay		24.5			17.2							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 81.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1110	850	70	730	0	200	0	280	0	0	0
Future Volume (vph)	0	1110	850	70	730	0	200	0	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			823						219			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1168	895	74	768	0	211	0	295	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		37.0		11.0	48.0		22.0		22.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		27.1	59.9	6.8	32.8		15.6		18.7			
Actuated g/C Ratio		0.45	1.00	0.11	0.55		0.26		0.31			
v/c Ratio		0.73	0.58	0.37	0.40		0.46		0.46			
Control Delay		17.0	1.6	34.0	7.8		23.9		9.3			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		17.0	1.6	34.0	7.8		23.9		9.3			
LOS		B	A	C	A		C		A			
Approach Delay		10.3			10.1							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 59.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 11.0 Intersection LOS: B
Intersection Capacity Utilization 55.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB

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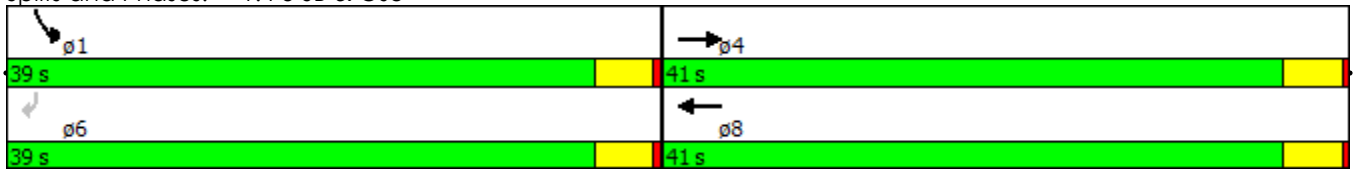
HCM Signalized Intersection Data Set 11 2035 Cumulative With SR-241 Extension – Project Alternative 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Future Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			779						19
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1137	421	0	1558	779	0	0	0	579	0	716
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		41.0			41.0					39.0		39.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		31.9	75.1		31.9	75.1				35.2		35.2
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.47		0.47
v/c Ratio		0.53	0.27		0.72	0.49				0.36		0.54
Control Delay		16.8	0.4		19.9	1.1				14.4		16.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		16.8	0.4		19.9	1.1				14.4		16.7
LOS		B	A		B	A				B		B
Approach Delay		12.4			13.6							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 59.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

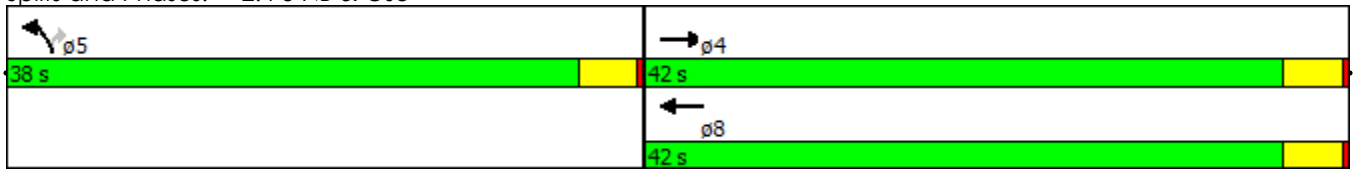


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1160	480	0	2020	1330	340	0	480	0	0	0
Future Volume (vph)	0	1160	480	0	2020	1330	340	0	480	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			498			1091			30			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1221	505	0	2126	1400	358	0	505	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		42.0			42.0		38.0		38.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		36.7	71.2		36.7	71.2	26.4		26.4			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.37		0.37			
v/c Ratio		0.47	0.33		0.81	0.88	0.28		0.83			
Control Delay		12.6	0.6		18.9	8.8	16.2		32.5			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		12.6	0.6		18.9	8.8	16.2		32.5			
LOS		B	A		B	A	B		C			
Approach Delay		9.1			14.9							
Approach LOS		A			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 71.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 58.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso

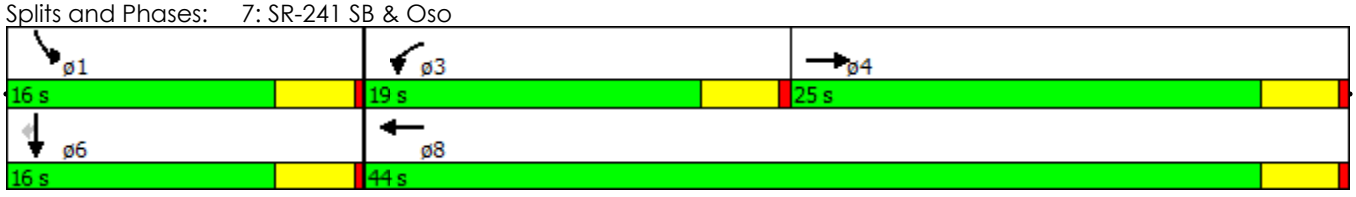


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	670	300	110	1600	0	0	0	0	50	0	80
Future Volume (vph)	0	670	300	110	1600	0	0	0	0	50	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			316									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	705	316	116	1684	0	0	0	0	53	0	84
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		19.0	44.0					16.0	16.0	16.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		16.4	47.0	8.5	26.6					8.0		12.2
Actuated g/C Ratio		0.35	1.00	0.18	0.57					0.17		0.26
v/c Ratio		0.40	0.20	0.36	0.59					0.09		0.18
Control Delay		13.3	0.3	21.7	7.2					17.7		5.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		13.3	0.3	21.7	7.2					17.7		5.9
LOS		B	A	C	A					B		A
Approach Delay		9.2			8.2							
Approach LOS		A			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 47			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 52.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

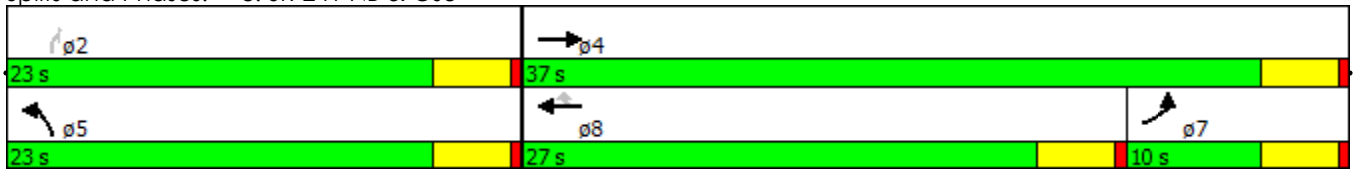


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	570	0	0	1300	240	460	0	40	0	0	0
Future Volume (vph)	160	570	0	0	1300	240	460	0	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						253			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	600	0	0	1368	253	484	0	42	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	10.0	37.0			27.0	27.0	23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.1	29.3			21.7	21.7	19.3		19.3			
Actuated g/C Ratio	0.11	0.52			0.38	0.38	0.34		0.34			
v/c Ratio	0.46	0.33			0.70	0.34	0.41		0.07			
Control Delay	29.9	8.2			17.5	3.5	17.0		1.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	29.9	8.2			17.5	3.5	17.0		1.1			
LOS	C	A			B	A	B		A			
Approach Delay		12.9			15.3							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 14.7		Intersection LOS: B	
Intersection Capacity Utilization 52.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

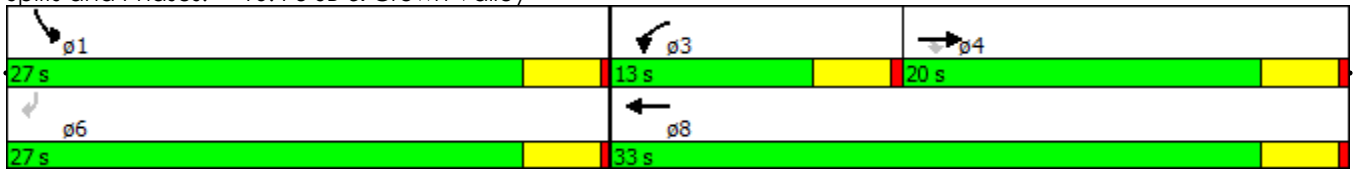


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1660	240	370	1230	0	0	0	0	1270	0	760
Future Volume (vph)	0	1660	240	370	1230	0	0	0	0	1270	0	760
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1747	253	389	1295	0	0	0	0	1337	0	800
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.87	0.43	0.76	0.53					0.70		0.71
Control Delay		27.1	5.4	35.9	11.7					18.0		18.0
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		27.1	5.4	35.9	11.7					18.0		18.0
LOS		C	A	D	B					B		B
Approach Delay		24.4			17.3							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.0 Intersection LOS: B
Intersection Capacity Utilization 64.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

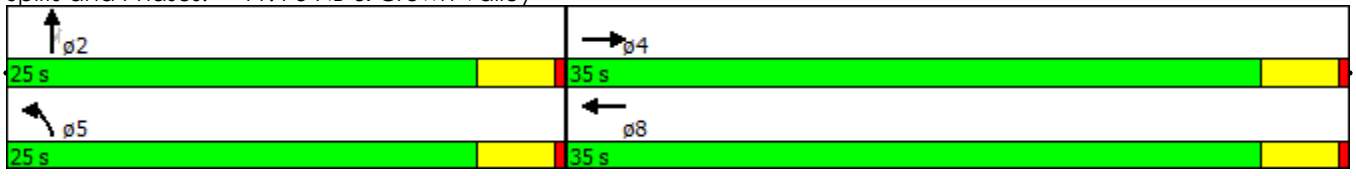


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	760	0	1340	1310	330	0	550	0	0	0
Future Volume (vph)	0	2100	760	0	1340	1310	330	0	550	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5917	1283	0	4570	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5917	1260	0	4570	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66	536		304	689		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			33%			50%	10%		47%			
Lane Group Flow (vph)	0	2475	536	0	2101	689	312	307	307	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.80	0.43		0.84	0.51	0.53	0.59	0.57			
Control Delay		14.1	1.1		14.4	1.3	19.6	20.5	19.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		14.1	1.1		14.4	1.3	19.6	20.5	19.9			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.8			11.2			20.0				
Approach LOS		B			B			B				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 12.7 Intersection LOS: B
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: I-5 NB & Crown Valley



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	520	490	40	450	600
Future Volume (vph)	130	520	490	40	450	600
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		547		42		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	547	516	42	474	632
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	16.1	25.9	16.1	36.1
Actuated g/C Ratio	0.18	0.18	0.30	0.48	0.30	0.67
v/c Ratio	0.42	0.76	0.93	0.05	0.90	0.51
Control Delay	23.3	10.1	47.9	2.2	44.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	10.1	47.9	2.2	44.0	7.0
LOS	C	B	D	A	D	A
Approach Delay	12.7		44.5			22.9
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1250	620
Future Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1250	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				463
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1243	0	11	1316	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		20.0	51.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.8	16.7		6.2	5.8		16.1	54.6		5.0	36.1	36.1
Actuated g/C Ratio	0.19	0.20		0.07	0.07		0.19	0.65		0.06	0.43	0.43
v/c Ratio	0.85	0.25		0.08	0.17		0.81	0.34		0.10	0.82	0.71
Control Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	27.2	11.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	48.2	1.5
Total Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	75.4	12.5
LOS	D	B		D	C		D	A		D	E	B
Approach Delay		42.4			32.9			16.2			54.5	
Approach LOS		D			C			B			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 83.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.6 Intersection LOS: D
Intersection Capacity Utilization 81.0% ICU Level of Service D
Analysis Period (min) 15

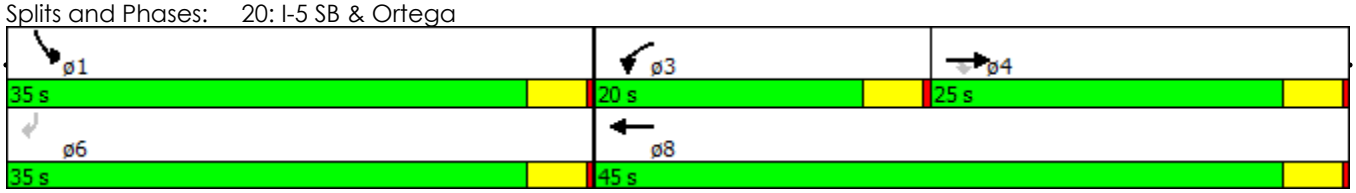
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1240	460	530	870	0	0	0	0	960	0	1010
Future Volume (vph)	0	1240	460	530	870	0	0	0	0	960	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421									204
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1305	484	558	916	0	0	0	0	1011	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.88	0.68	0.82	0.48					0.74		0.78
Control Delay		36.9	10.2	42.0	13.7					24.9		21.9
Queue Delay		2.5	0.0	0.0	0.5					0.0		0.0
Total Delay		39.4	10.2	42.0	14.2					24.9		21.9
LOS		D	B	D	B					C		C
Approach Delay		31.5			24.7							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 26.5 Intersection LOS: C
Intersection Capacity Utilization 84.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

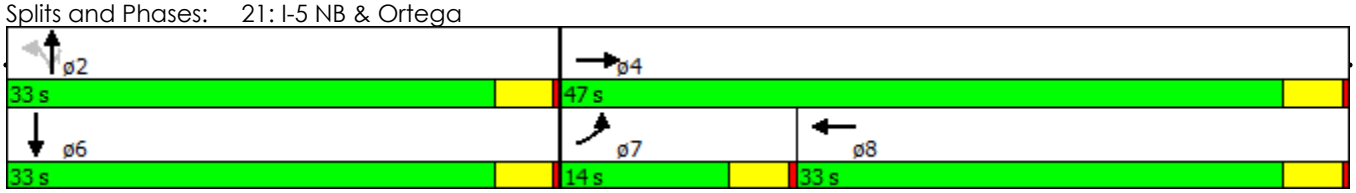


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1430	780	0	1930	10	280	10	750	0	0	10
Future Volume (vph)	10	1430	780	0	1930	10	280	10	750	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5367	1362	0	5529	0	0	1691	1583	0	1611	0
Flt Permitted	0.950							0.831				
Satd. Flow (perm)	1770	5367	1337	0	5529	0	0	1441	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95	525		1			22	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			36%						33%			
Lane Group Flow (vph)	11	1801	525	0	2043	0	0	566	529	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	37.1	74.3		35.0			29.2	29.2		29.2	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.39	0.39		0.39	
v/c Ratio	0.08	0.66	0.39		0.78			0.98	0.80		0.01	
Control Delay	34.7	14.2	0.9		20.1			58.0	29.8		0.0	
Queue Delay	0.0	21.6	0.0		0.0			0.0	0.0		0.0	
Total Delay	34.7	35.8	0.9		20.1			58.0	29.8		0.0	
LOS	C	D	A		C			E	C		A	
Approach Delay		28.0			20.1			44.4			0.0	
Approach LOS		C			C			D			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 28.2 Intersection LOS: C
Intersection Capacity Utilization 82.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

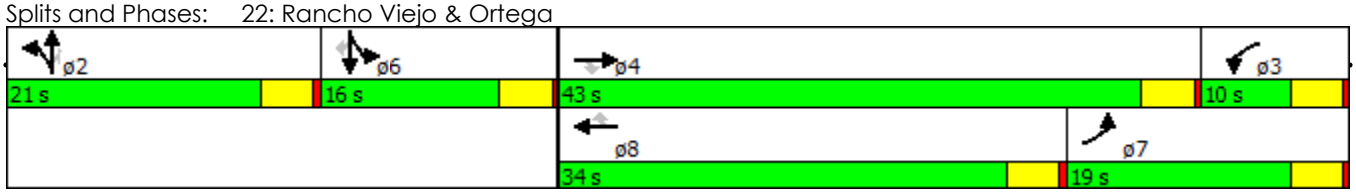


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1250	470	80	1740	440	280	160	40	220	190	120
Future Volume (vph)	270	1250	470	80	1740	440	280	160	40	220	190	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1853	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1853	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			435			460			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	284	1316	495	84	1832	463	295	168	42	209	223	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	19.0	43.0	43.0	10.0	34.0	34.0	21.0	21.0	21.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	41.0	41.0	6.0	30.0	30.0	17.0	17.0	17.0	12.0	12.0	12.0
Actuated g/C Ratio	0.17	0.46	0.46	0.07	0.33	0.33	0.19	0.19	0.19	0.13	0.13	0.13
v/c Ratio	0.96	0.79	0.55	0.71	1.00	0.56	0.44	0.48	0.10	0.89	0.90	0.36
Control Delay	83.2	25.9	5.5	73.7	52.7	5.2	34.7	37.8	0.5	75.6	77.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.2	25.9	5.5	73.7	52.7	5.2	34.7	37.8	0.5	75.6	77.4	6.5
LOS	F	C	A	E	D	A	C	D	A	E	E	A
Approach Delay		28.9			44.2			32.9			60.7	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 39.0 Intersection LOS: D
Intersection Capacity Utilization 86.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

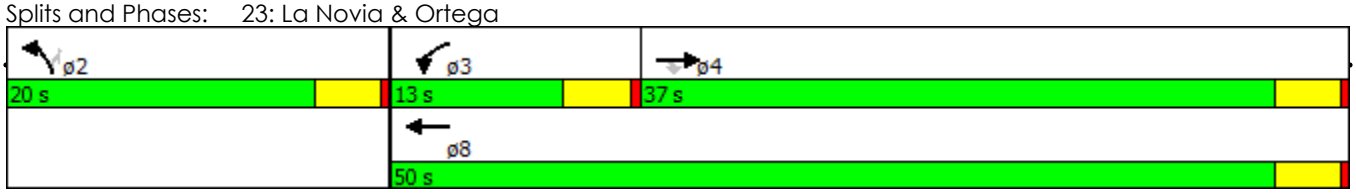


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1110	280	230	1970	340	200
Future Volume (vph)	1110	280	230	1970	340	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		271				211
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1168	295	242	2074	358	211
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	37.0	37.0	13.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	32.7	32.7	8.7	45.4	16.0	16.0
Actuated g/C Ratio	0.47	0.47	0.13	0.65	0.23	0.23
v/c Ratio	0.71	0.34	0.57	0.91	0.45	0.41
Control Delay	17.7	3.3	34.3	18.5	25.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	3.3	34.3	18.5	25.3	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.8			20.2	18.3	
Approach LOS	B			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 18.1 Intersection LOS: B
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

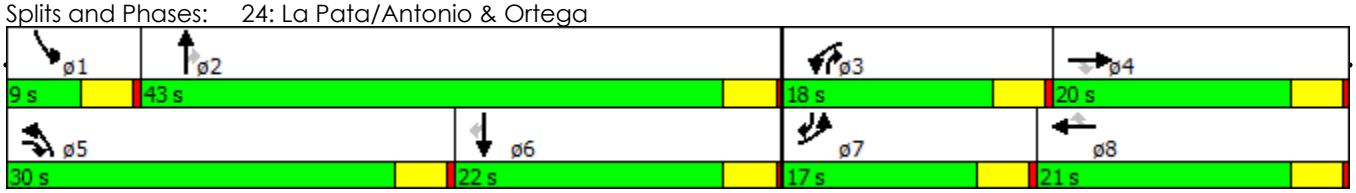


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	410	160	770	260	420	10	720	760	170	10	1030	820
Future Volume (vph)	410	160	770	260	420	10	720	760	170	10	1030	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			179			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	432	168	811	274	442	11	758	800	179	11	1084	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	30.0	18.0	21.0	21.0	30.0	43.0	18.0	9.0	22.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.0	14.0	40.1	14.0	15.0	15.0	26.0	46.3	60.3	5.0	18.0	31.0
Actuated g/C Ratio	0.15	0.16	0.46	0.16	0.17	0.17	0.30	0.53	0.68	0.06	0.20	0.35
v/c Ratio	0.83	0.29	1.09	0.98	0.71	0.03	0.73	0.27	0.16	0.11	0.95	0.76
Control Delay	51.7	33.8	84.8	87.3	41.3	0.1	32.9	12.6	1.3	42.9	52.7	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	33.8	84.8	87.3	41.3	0.1	32.9	12.6	1.3	42.9	52.7	25.2
LOS	D	C	F	F	D	A	C	B	A	D	D	C
Approach Delay		68.6			58.0			20.3			40.5	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 43.5 Intersection LOS: D
Intersection Capacity Utilization 93.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

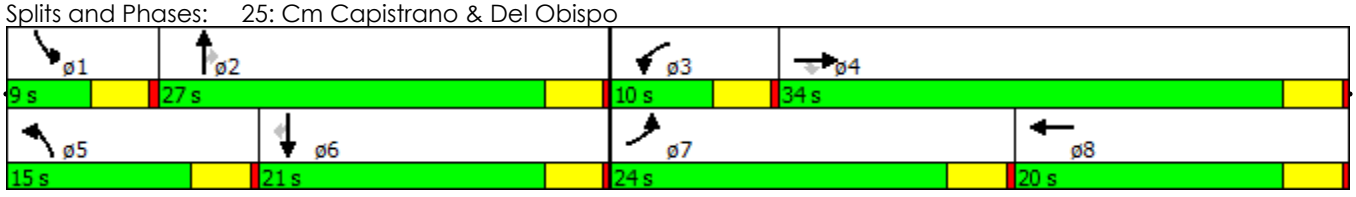


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Future Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			346		5				177			453
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	547	432	137	526	0	474	442	126	32	284	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	34.0	34.0	10.0	20.0		15.0	27.0	27.0	9.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.7	28.7	28.7	6.0	15.0		11.0	28.5	28.5	5.0	17.0	17.0
Actuated g/C Ratio	0.25	0.36	0.36	0.08	0.19		0.14	0.36	0.36	0.06	0.22	0.22
v/c Ratio	0.93	0.42	0.56	0.52	0.78		0.99	0.66	0.19	0.29	0.71	0.66
Control Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
LOS	E	B	A	D	D		E	C	A	D	D	A
Approach Delay		27.8			40.0			46.7			21.5	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 33.8		Intersection LOS: C	
Intersection Capacity Utilization 76.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

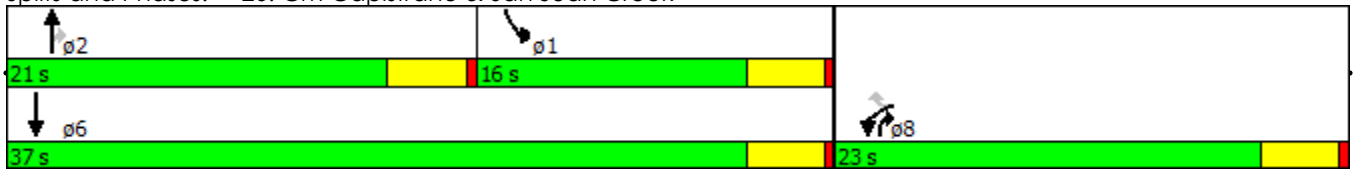


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	710	540	510	640	520	550
Future Volume (vph)	710	540	510	640	520	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	350		20		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	906	409	537	674	547	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	21.0	23.0	16.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.6	18.6	17.0	35.6	12.0	33.0
Actuated g/C Ratio	0.31	0.31	0.29	0.60	0.20	0.55
v/c Ratio	0.84	0.61	0.53	0.72	0.79	0.30
Control Delay	27.4	7.9	20.4	11.4	33.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	7.9	20.4	11.4	33.1	7.7
LOS	C	A	C	B	C	A
Approach Delay	21.3		15.4			20.1
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	640	350	800	50	560	700
Future Volume (vph)	640	350	800	50	560	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		368		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	674	368	842	53	589	737
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	19.0		24.0		17.0	41.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	14.5	59.5	20.4	59.5	12.7	37.0
Actuated g/C Ratio	0.24	1.00	0.34	1.00	0.21	0.62
v/c Ratio	0.81	0.23	0.70	0.03	0.81	0.33
Control Delay	30.4	0.3	20.8	0.0	32.9	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	0.3	20.8	0.0	32.9	6.0
LOS	C	A	C	A	C	A
Approach Delay	19.8		19.6			17.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	860	390	340
Future Volume (vph)	520	630	240	860	390	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.649	0.950	
Satd. Flow (perm)	1863	1493	0	2297	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				284
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1158	411	358
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	38.0	38.0	38.0	38.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.2	32.2		32.2	18.1	18.1
Actuated g/C Ratio	0.55	0.55		0.55	0.31	0.31
v/c Ratio	0.53	0.59		0.91	0.75	0.52
Control Delay	10.5	3.1		24.9	29.8	7.6
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	10.5	3.1		24.9	29.8	7.6
LOS	B	A		C	C	A
Approach Delay	6.4			24.9	19.4	
Approach LOS	A			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 89.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Future Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				537
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	452	84	0	337	158	105	232	0	0	369	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	21.0	21.0	21.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		16.6	16.6		12.6	12.6	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.28	0.28		0.21	0.21	0.30	0.30			0.30	0.30
v/c Ratio		0.91	0.17		0.85	0.34	0.54	0.41			0.71	0.63
Control Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
LOS		D	A		D	A	C	B			C	A
Approach Delay		39.8			32.9			22.6			14.7	
Approach LOS		D			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

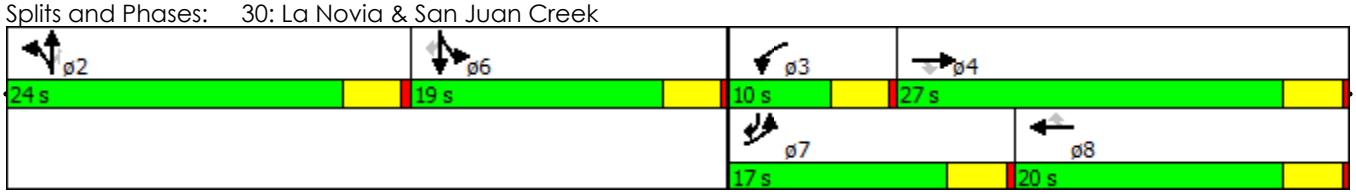
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Future Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			284			177			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	126	95	53	221	284	137	263	42	179	168	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	27.0	27.0	10.0	20.0	20.0	24.0	24.0	24.0	19.0	19.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.0	22.5	22.5	5.9	13.2	13.2	20.1	20.1	20.1	15.1	15.1	30.0
Actuated g/C Ratio	0.15	0.30	0.30	0.08	0.18	0.18	0.27	0.27	0.27	0.20	0.20	0.40
v/c Ratio	0.61	0.23	0.17	0.38	0.68	0.58	0.29	0.53	0.08	0.51	0.45	0.37
Control Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
LOS	D	C	A	D	D	A	C	C	A	C	C	A
Approach Delay		25.7			24.7			25.5			19.4	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 30: La Novia & San Juan Creek

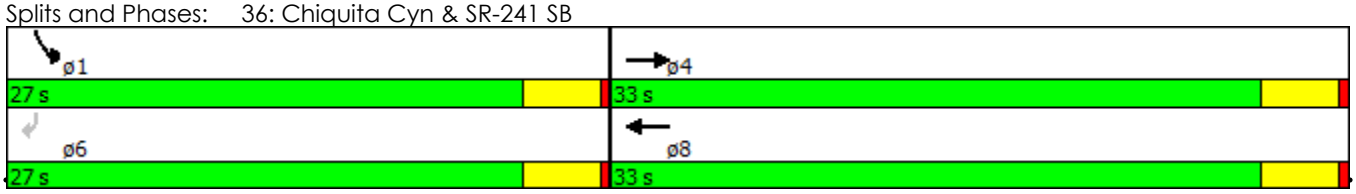


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	470	140	0	290	170
Future Volume (vph)	0	470	140	0	290	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						179
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	495	147	0	305	179
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		33.0	33.0		27.0	27.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		18.2	18.2		23.3	23.3
Actuated g/C Ratio		0.37	0.37		0.47	0.47
v/c Ratio		0.72	0.22		0.37	0.21
Control Delay		19.9	10.9		11.7	3.0
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		19.9	10.9		11.7	3.0
LOS		B	B		B	A
Approach Delay		19.9	10.9		8.5	
Approach LOS		B	B		A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 49.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	350	410	140	610	0	0
Future Volume (vph)	350	410	140	610	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				183		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	432	147	642	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	22.0	60.0	38.0	38.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	14.0	44.2	21.4	21.4		
Actuated g/C Ratio	0.32	1.00	0.48	0.48		
v/c Ratio	0.66	0.23	0.16	0.79		
Control Delay	22.1	0.3	6.8	14.5		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	22.1	0.3	6.8	14.5		
LOS	C	A	A	B		
Approach Delay		10.3	13.1			
Approach LOS		B	B			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 44.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 65.8% ICU Level of Service C
Analysis Period (min) 15

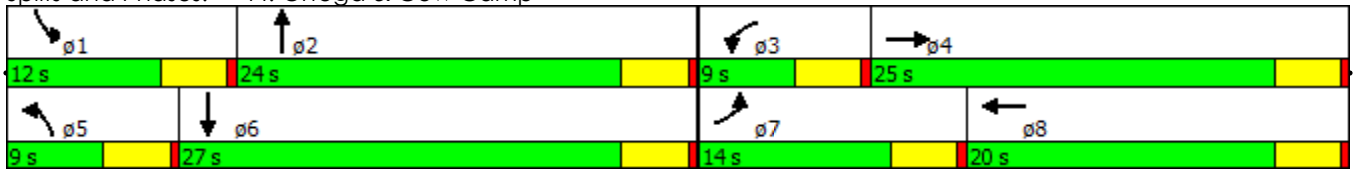
Splits and Phases: 37: Grandeza & SR-241 NB

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	490	830	10	40	270	20	10	80	210	90	610	630
Future Volume (vph)	490	830	10	40	270	20	10	80	210	90	610	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3679	0	1770	3229	0	1770	3376	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3679	0	1770	3229	0	1770	3376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			11			221			397	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	516	885	0	42	305	0	11	305	0	95	1305	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	14.0	25.0		9.0	20.0		9.0	24.0		12.0	27.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	10.1	21.8		5.1	12.6		5.1	21.0		7.4	28.4	
Actuated g/C Ratio	0.16	0.34		0.08	0.19		0.08	0.32		0.11	0.44	
v/c Ratio	0.94	0.71		0.30	0.42		0.08	0.26		0.47	0.77	
Control Delay	57.1	24.2		36.9	24.1		31.8	6.7		37.2	16.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	57.1	24.2		36.9	24.1		31.8	6.7		37.2	16.1	
LOS	E	C		D	C		C	A		D	B	
Approach Delay		36.4			25.6			7.6			17.5	
Approach LOS		D			C			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp

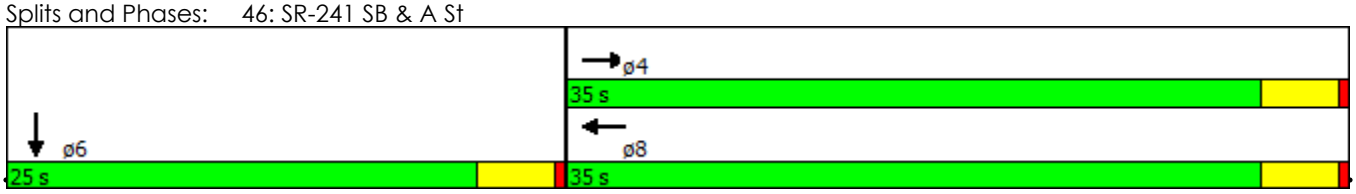


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	210	180	0	90	0	0	0	0	0	0	310
Future Volume (vph)	0	210	180	0	90	0	0	0	0	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1747	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1747	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		106									782	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	410	0	0	95	0	0	0	0	0	326	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		12.9			12.9						21.2	
Actuated g/C Ratio		0.31			0.31						0.50	
v/c Ratio		0.67			0.17						0.27	
Control Delay		15.1			10.7						0.6	
Queue Delay		0.0			0.0						0.0	
Total Delay		15.1			10.7						0.6	
LOS		B			B						A	
Approach Delay		15.1			10.7						0.6	
Approach LOS		B			B						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 42.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 47.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 46: SR-241 SB & A St



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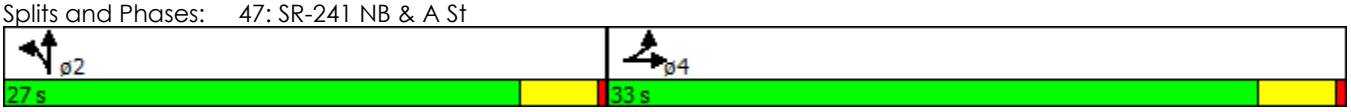
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	0	0	0	0	0	90	0	0	0	0	0
Future Volume (vph)	210	0	0	0	0	0	90	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	221	0	0	0	0	0	95	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	33.0	33.0					27.0	27.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	10.8						27.4					
Actuated g/C Ratio	0.23						0.59					
v/c Ratio	0.54						0.09					
Control Delay	19.3						5.3					
Queue Delay	0.0						0.0					
Total Delay	19.3						5.3					
LOS	B						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 46.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 47.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

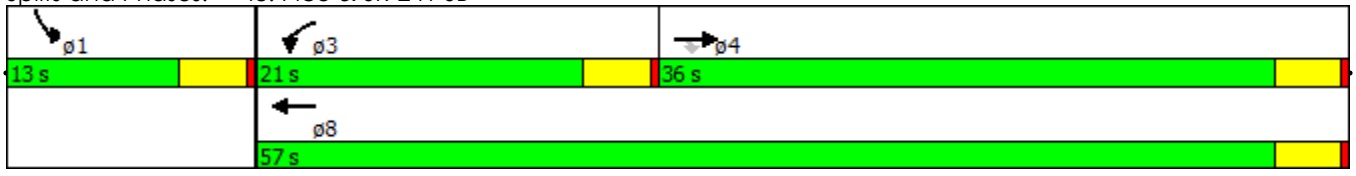


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	990	210	180	1310	0	0	0	0	50	0	560
Future Volume (vph)	0	990	210	180	1310	0	0	0	0	50	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									252
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1042	221	189	1379	0	0	0	0	53	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		36.0	36.0	21.0	57.0					13.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		27.6	27.6	12.6	40.5					8.7		47.9
Actuated g/C Ratio		0.58	0.58	0.26	0.85					0.18		1.00
v/c Ratio		0.51	0.23	0.41	0.46					0.17		0.37
Control Delay		11.8	2.6	23.1	3.0					26.4		0.7
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		11.8	2.6	23.1	3.0					26.4		0.7
LOS		B	A	C	A					C		A
Approach Delay		10.2			5.5							
Approach LOS		B			A							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 47.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 50.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB

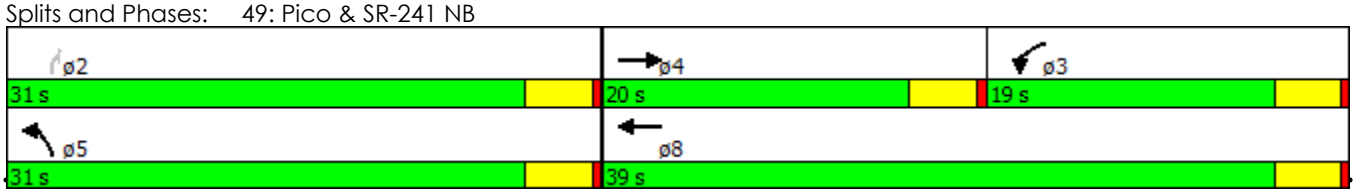


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	510	530	230	1050	0	440	0	110	0	0	0
Future Volume (vph)	0	510	530	230	1050	0	440	0	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			558						116			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	537	558	242	1105	0	463	0	116	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		20.0		19.0	39.0		31.0		31.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		14.2	66.3	12.9	31.1		27.1		27.1			
Actuated g/C Ratio		0.21	1.00	0.19	0.47		0.41		0.41			
v/c Ratio		0.71	0.36	0.70	0.67		0.64		0.16			
Control Delay		30.2	0.7	37.2	15.7		21.7		3.9			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		30.2	0.7	37.2	15.7		21.7		3.9			
LOS		C	A	D	B		C		A			
Approach Delay		15.2			19.5							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 61.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB



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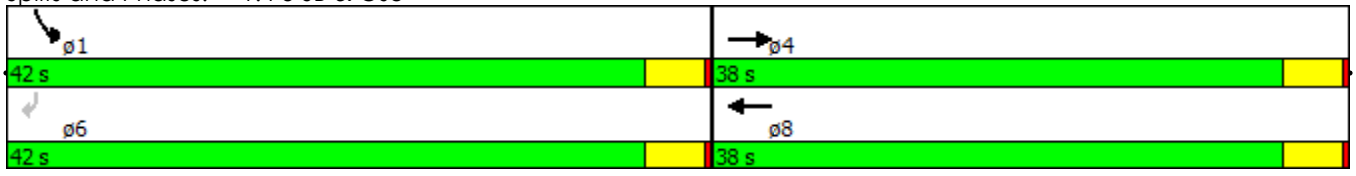
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1730	600	0	1420	610	0	0	0	1230	0	420
Future Volume (vph)	0	1730	600	0	1420	610	0	0	0	1230	0	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469			642						15
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1821	632	0	1495	642	0	0	0	1295	0	442
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		38.0			38.0					42.0		42.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		33.6	79.6		33.6	79.6				38.0		38.0
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.48		0.48
v/c Ratio		0.85	0.41		0.70	0.41				0.79		0.33
Control Delay		25.5	0.8		20.9	0.8				22.0		13.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		25.5	0.8		20.9	0.8				22.0		13.4
LOS		C	A		C	A				C		B
Approach Delay		19.1			14.9							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 17.9		Intersection LOS: B	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

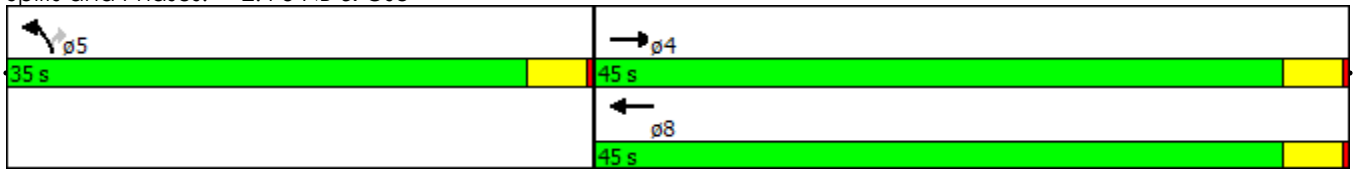


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Future Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190			684			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2663	421	0	1558	684	568	0	684	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		45.0			45.0		35.0		35.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		41.0	80.0		41.0	80.0	31.0		31.0			
Actuated g/C Ratio		0.51	1.00		0.51	1.00	0.39		0.39			
v/c Ratio		1.02	0.27		0.60	0.43	0.43		1.10			
Control Delay		44.2	0.4		14.9	0.9	19.2		93.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.2	0.4		14.9	0.9	19.2		93.1			
LOS		D	A		B	A	B		F			
Approach Delay		38.3			10.6							
Approach LOS		D			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 32.9 Intersection LOS: C
Intersection Capacity Utilization 95.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	780	610	100	1020	0	0	0	0	180	0	60
Future Volume (vph)	0	780	610	100	1020	0	0	0	0	180	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			642									106
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	642	105	1074	0	0	0	0	189	0	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		17.0	42.0					18.0	18.0	18.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		15.1	45.4	8.4	22.2					12.5		14.7
Actuated g/C Ratio		0.33	1.00	0.19	0.49					0.28		0.32
v/c Ratio		0.49	0.41	0.32	0.43					0.20		0.11
Control Delay		14.1	0.8	21.3	7.3					15.2		2.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		14.1	0.8	21.3	7.3					15.2		2.4
LOS		B	A	C	A					B		A
Approach Delay		8.2			8.5							
Approach LOS		A			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 46.1%		ICU Level of Service A	
Analysis Period (min) 15			

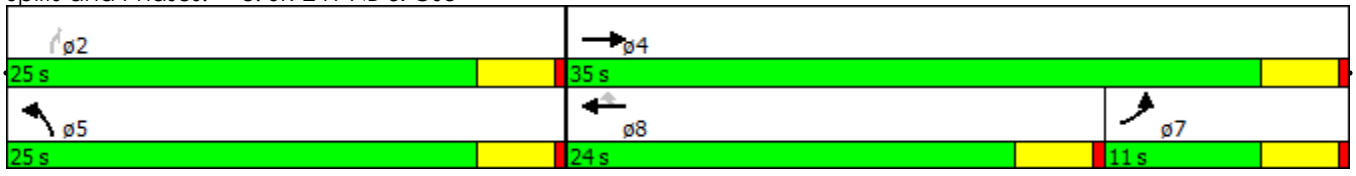
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	940	0	0	650	70	470	0	100	0	0	0
Future Volume (vph)	50	940	0	0	650	70	470	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	989	0	0	684	74	495	0	105	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	11.0	35.0			24.0	24.0	25.0		25.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.2	21.2			17.4	17.4	21.3		21.3			
Actuated g/C Ratio	0.12	0.42			0.34	0.34	0.42		0.42			
v/c Ratio	0.13	0.67			0.39	0.13	0.34		0.15			
Control Delay	22.6	13.9			14.2	3.8	12.1		4.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	22.6	13.9			14.2	3.8	12.1		4.9			
LOS	C	B			B	A	B		A			
Approach Delay		14.3			13.2							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 46.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

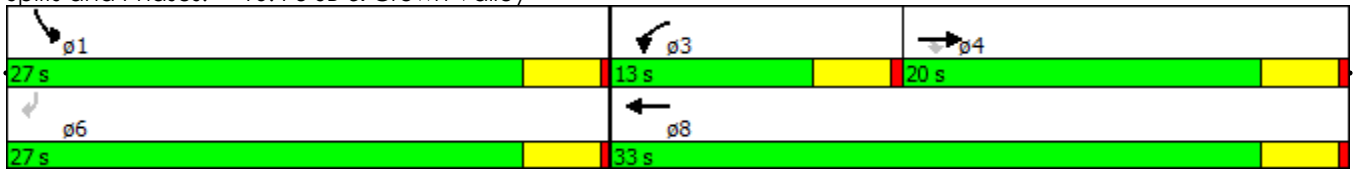


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1810	330	490	1380	0	0	0	0	1510	0	1060
Future Volume (vph)	0	1810	330	490	1380	0	0	0	0	1510	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			347									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1905	347	516	1453	0	0	0	0	1589	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.95	0.52	1.00	0.59					0.83		0.99
Control Delay		34.0	5.7	70.0	12.5					21.7		44.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.0	5.7	70.0	12.5					21.7		44.9
LOS		C	A	E	B					C		D
Approach Delay		29.6			27.5							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 29.7 Intersection LOS: C
Intersection Capacity Utilization 73.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2640	580	0	1660	1560	240	0	450	0	0	0
Future Volume (vph)	0	2640	580	0	1660	1560	240	0	450	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4575	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4575	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11	445		339	821		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2840	550	0	2568	821	228	253	246	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		39.0			39.0		21.0	21.0	21.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		35.0	60.0		35.0	60.0	17.0	17.0	17.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.28	0.28	0.28			
v/c Ratio		0.81	0.44		0.91	0.60	0.48	0.59	0.56			
Control Delay		12.2	1.1		16.5	2.0	21.9	23.9	22.7			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		12.2	1.1		16.5	2.0	21.9	23.9	22.7			
LOS		B	A		B	A	C	C	C			
Approach Delay		10.4			13.0			22.9				
Approach LOS		B			B			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 66.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	480	90	370	560
Future Volume (vph)	160	490	480	90	370	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		516		95		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	505	95	389	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	22.0	20.0	18.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	18.1	28.6	14.1	36.1
Actuated g/C Ratio	0.19	0.19	0.33	0.52	0.26	0.66
v/c Ratio	0.49	0.74	0.82	0.11	0.85	0.48
Control Delay	24.5	9.4	31.8	1.6	42.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	9.4	31.8	1.6	42.0	6.9
LOS	C	A	C	A	D	A
Approach Delay	13.1		27.0			20.8
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	640	10	150	10	10	10	160	1200	10	10	960	820
Future Volume (vph)	640	10	150	10	10	10	160	1200	10	10	960	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			2				610
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	674	169	0	11	22	0	168	1274	0	11	1011	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		20.0	68.0		9.0	57.0	57.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.4	26.9		8.0	6.2		16.1	71.7		5.0	53.3	53.3
Actuated g/C Ratio	0.22	0.24		0.07	0.05		0.14	0.63		0.04	0.47	0.47
v/c Ratio	0.87	0.35		0.09	0.21		0.67	0.40		0.14	0.61	0.84
Control Delay	55.8	10.2		49.8	40.2		61.6	11.9		59.4	25.1	16.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	18.4	8.0
Total Delay	55.8	10.2		49.8	40.2		61.6	11.9		59.4	43.6	24.8
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		46.7			43.4			17.7			35.1	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 113			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

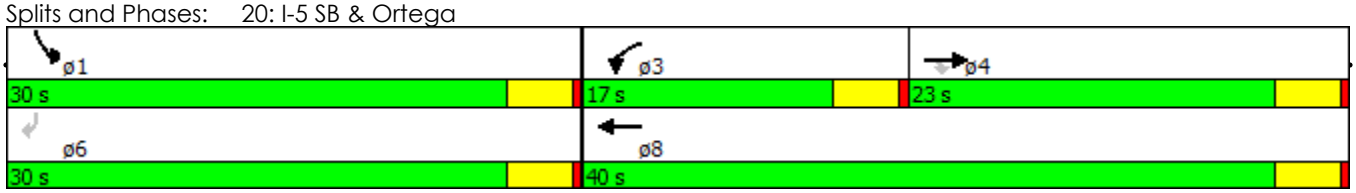
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1380	450	580	780	0	0	0	0	1220	0	1010
Future Volume (vph)	0	1380	450	580	780	0	0	0	0	1220	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			429									266
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1453	474	611	821	0	0	0	0	1284	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	17.0	40.0					30.0		30.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		19.0	19.0	13.0	36.0					26.0		26.0
Actuated g/C Ratio		0.27	0.27	0.19	0.51					0.37		0.37
v/c Ratio		0.96	0.65	0.94	0.43					0.99		0.79
Control Delay		41.7	8.5	53.7	11.5					45.8		19.7
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		41.7	8.5	53.7	11.5					45.8		19.7
LOS		D	A	D	B					D		B
Approach Delay		33.5			29.5							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 32.7 Intersection LOS: C
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

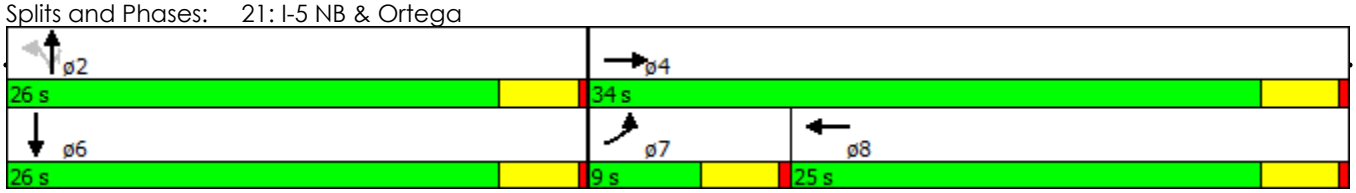


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1860	750	0	1890	10	220	10	650	0	0	10
Future Volume (vph)	10	1860	750	0	1890	10	220	10	650	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5457	1583	0	5529	0	0	1685	1583	0	1611	0
Flt Permitted	0.950							0.840				
Satd. Flow (perm)	1770	5457	1555	0	5529	0	0	1450	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39	615		2			4	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			22%						34%			
Lane Group Flow (vph)	11	2132	615	0	2000	0	0	476	451	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.0	60.0		28.2			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.37	0.37		0.37	
v/c Ratio	0.07	0.78	0.40		0.77			0.89	0.71		0.02	
Control Delay	26.7	14.5	0.8		17.8			40.7	20.3		0.0	
Queue Delay	0.0	47.8	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.7	62.3	0.8		17.8			40.7	20.3		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		48.4			17.8			30.8			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.7 Intersection LOS: C
Intersection Capacity Utilization 81.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

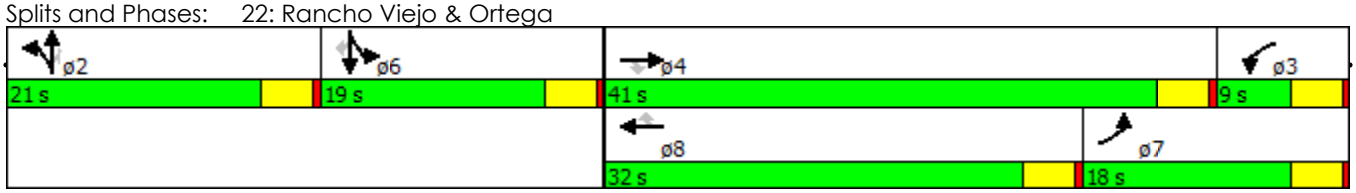


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1400	380	70	1220	250	460	130	50	380	150	160
Future Volume (vph)	200	1400	380	70	1220	250	460	130	50	380	150	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			302			263			158			168
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	211	1474	400	74	1284	263	484	137	53	276	282	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	18.0	41.0	41.0	9.0	32.0	32.0	21.0	21.0	21.0	19.0	19.0	19.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.2	37.1	37.1	5.0	26.9	26.9	17.0	17.0	17.0	15.0	15.0	15.0
Actuated g/C Ratio	0.15	0.42	0.42	0.06	0.30	0.30	0.19	0.19	0.19	0.17	0.17	0.17
v/c Ratio	0.80	0.96	0.51	0.74	0.77	0.40	0.71	0.38	0.13	0.92	0.91	0.41
Control Delay	59.4	41.5	7.5	83.1	31.5	5.0	40.2	35.4	0.6	73.1	71.4	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	41.5	7.5	83.1	31.5	5.0	40.2	35.4	0.6	73.1	71.4	9.0
LOS	E	D	A	F	C	A	D	D	A	E	E	A
Approach Delay		36.8			29.6			36.1			57.6	
Approach LOS		D			C			D			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 37.4 Intersection LOS: D
Intersection Capacity Utilization 84.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

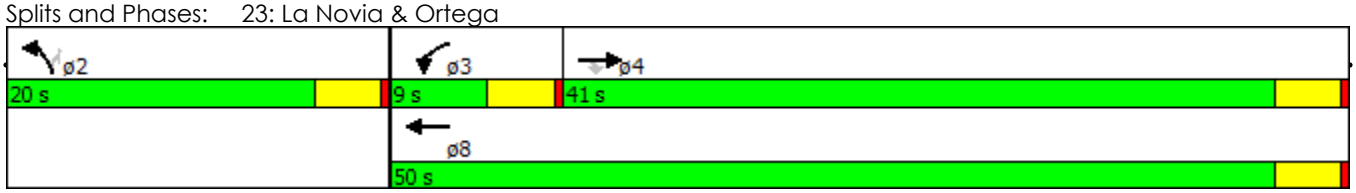


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1670	290	200	1330	250	160
Future Volume (vph)	1670	290	200	1330	250	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		209				139
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1758	305	211	1400	263	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	41.0	41.0	9.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	37.0	37.0	5.0	46.0	16.0	16.0
Actuated g/C Ratio	0.53	0.53	0.07	0.66	0.23	0.23
v/c Ratio	0.96	0.34	0.86	0.61	0.34	0.37
Control Delay	30.6	4.3	65.9	8.4	24.0	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	4.3	65.9	8.4	24.0	9.2
LOS	C	A	E	A	C	A
Approach Delay	26.7			15.9	18.2	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 21.6 Intersection LOS: C
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

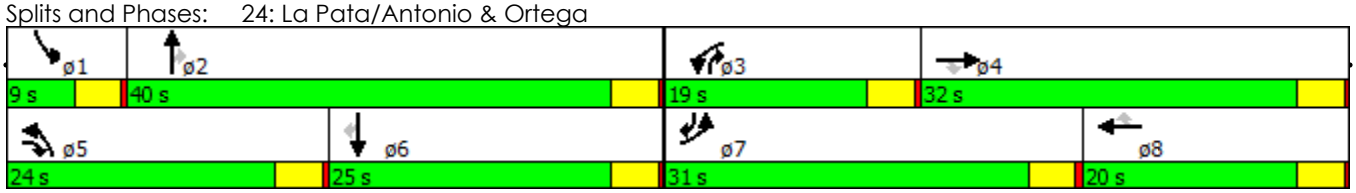


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	680	620	390	140	220	10	480	670	260	10	740	680
Future Volume (vph)	680	620	390	140	220	10	480	670	260	10	740	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92			185			98			142
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	716	653	411	147	232	11	505	705	274	11	779	716
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	31.0	32.0	24.0	19.0	20.0	20.0	24.0	40.0	19.0	9.0	25.0	31.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	23.7	23.0	40.6	12.1	11.5	11.5	17.6	41.3	53.4	5.1	21.3	45.0
Actuated g/C Ratio	0.26	0.25	0.45	0.13	0.13	0.13	0.20	0.46	0.59	0.06	0.24	0.50
v/c Ratio	0.77	0.70	0.55	0.62	0.50	0.03	0.73	0.28	0.29	0.11	0.59	0.45
Control Delay	37.5	35.5	15.0	50.1	41.6	0.2	41.8	16.9	6.3	47.2	34.2	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	35.5	15.0	50.1	41.6	0.2	41.8	16.9	6.3	47.2	34.2	11.3
LOS	D	D	B	D	D	A	D	B	A	D	C	B
Approach Delay		31.6			43.6			23.4			23.4	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 90.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 27.8 Intersection LOS: C
Intersection Capacity Utilization 70.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

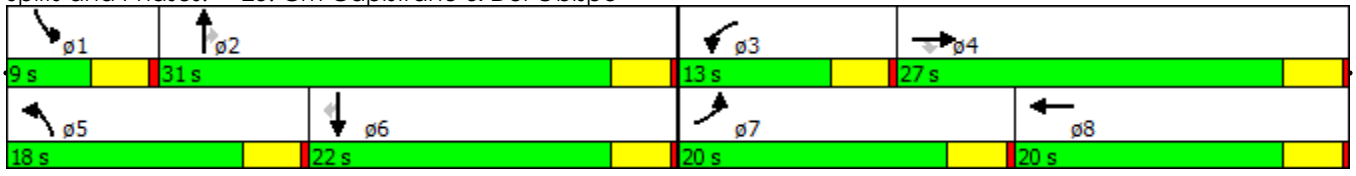


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Future Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3468	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3468	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			365		12				205			348
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	358	505	453	295	695	0	589	484	221	63	316	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	20.0	27.0	27.0	13.0	20.0		18.0	31.0	31.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.0	23.0	23.0	9.0	16.0		14.0	28.8	28.8	5.0	18.0	18.0
Actuated g/C Ratio	0.20	0.29	0.29	0.11	0.20		0.18	0.36	0.36	0.06	0.22	0.22
v/c Ratio	1.01	0.50	0.65	0.76	0.99		0.98	0.72	0.33	0.57	0.75	0.62
Control Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
LOS	F	C	B	D	E		E	C	A	E	D	A
Approach Delay		36.8			60.0			43.1			27.2	
Approach LOS		D			E			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 42.2		Intersection LOS: D	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

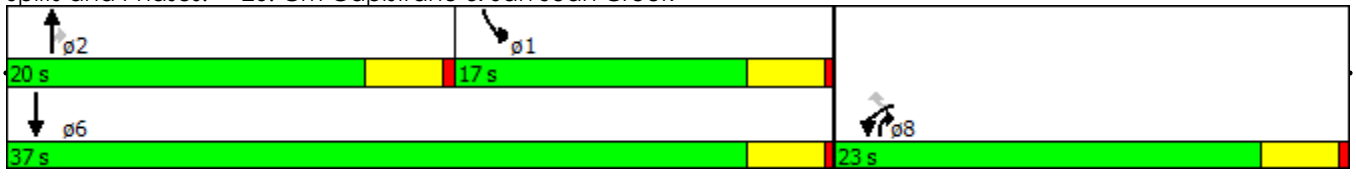


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	810	620	510	550	590	660
Future Volume (vph)	810	620	510	550	590	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46	353		17		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1036	470	537	579	621	695
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	20.0	23.0	17.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.0	19.0	16.0	35.0	13.0	33.0
Actuated g/C Ratio	0.32	0.32	0.27	0.58	0.22	0.55
v/c Ratio	0.95	0.69	0.57	0.63	0.84	0.36
Control Delay	39.1	11.0	21.8	9.6	34.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	11.0	21.8	9.6	34.8	8.2
LOS	D	B	C	A	C	A
Approach Delay	30.4		15.5			20.8
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 22.9 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

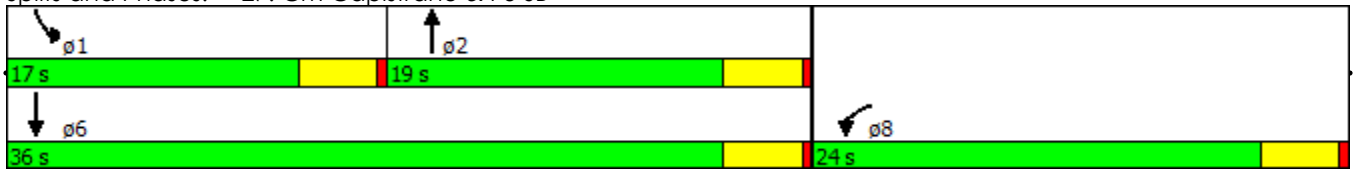


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	940	460	600	50	600	880
Future Volume (vph)	940	460	600	50	600	880
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		484		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	989	484	632	53	632	926
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		19.0		17.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	19.4	59.4	15.2	59.4	12.8	32.0
Actuated g/C Ratio	0.33	1.00	0.26	1.00	0.22	0.54
v/c Ratio	0.88	0.31	0.70	0.03	0.85	0.49
Control Delay	30.5	0.5	25.1	0.0	36.0	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	0.5	25.1	0.0	36.0	9.8
LOS	C	A	C	A	D	A
Approach Delay	20.6		23.2			20.4
Approach LOS	C		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

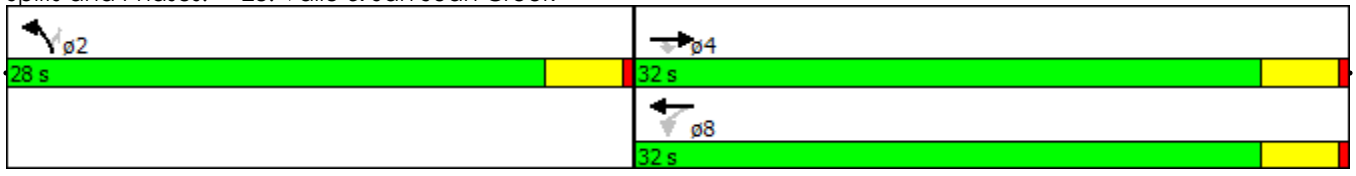


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	560	580	130	870	570	240
Future Volume (vph)	560	580	130	870	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.664	0.950	
Satd. Flow (perm)	1863	1493	0	2350	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				186
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	589	611	0	1053	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.0	28.0		28.0	24.0	24.0
Actuated g/C Ratio	0.47	0.47		0.47	0.40	0.40
v/c Ratio	0.68	0.60		0.96	0.85	0.34
Control Delay	17.4	3.8		37.3	30.5	5.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.4	3.8		37.3	30.5	5.4
LOS	B	A		D	C	A
Approach Delay	10.5			37.3	23.1	
Approach LOS	B			D	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 98.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

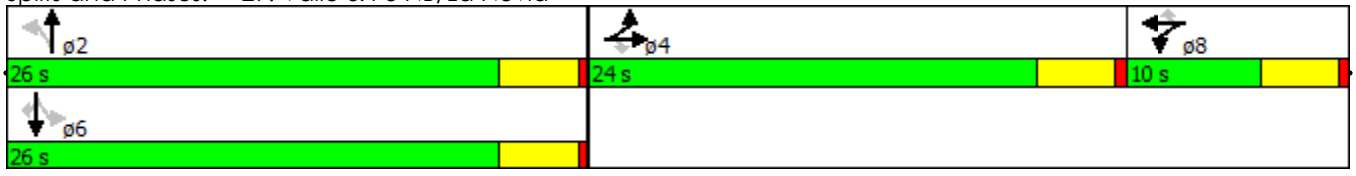


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Future Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1827	1583
Flt Permitted		0.961			0.991		0.445				0.623	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	829	1819	0	0	1160	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		12				400
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	495	74	0	116	116	189	368	0	0	348	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	10.0	10.0	10.0	26.0	26.0		26.0	26.0	26.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.4	18.4		6.1	6.1	22.4	22.4			22.4	22.4
Actuated g/C Ratio		0.33	0.33		0.11	0.11	0.40	0.40			0.40	0.40
v/c Ratio		0.85	0.13		0.58	0.42	0.58	0.51			0.76	0.46
Control Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
LOS		C	A		D	B	C	B			C	A
Approach Delay		30.8			26.0			19.7			16.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Future Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			274
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	105	21	105	105	274	95	200	11	211	263	274
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	14.0	20.0	20.0	14.0	20.0	20.0	23.0	23.0	23.0	23.0	23.0	14.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.9	12.2	12.2	8.7	9.8	9.8	19.1	19.1	19.1	19.1	19.1	32.0
Actuated g/C Ratio	0.12	0.17	0.17	0.12	0.13	0.13	0.26	0.26	0.26	0.26	0.26	0.44
v/c Ratio	0.54	0.34	0.06	0.50	0.42	0.63	0.21	0.41	0.02	0.46	0.54	0.32
Control Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.3			22.3			24.8			19.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 72.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

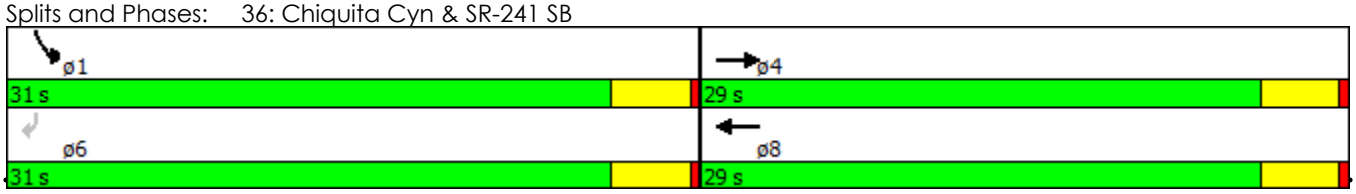
Splits and Phases: 30: La Novia & San Juan Creek

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	580	170	0	560	610
Future Volume (vph)	0	580	170	0	560	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						629
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	611	179	0	589	642
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		29.0	29.0		31.0	31.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		22.0	22.0		27.1	27.1
Actuated g/C Ratio		0.38	0.38		0.47	0.47
v/c Ratio		0.85	0.25		0.70	0.59
Control Delay		29.4	12.7		18.7	3.9
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		29.4	12.7		18.7	3.9
LOS		C	B		B	A
Approach Delay		29.4	12.7		11.0	
Approach LOS		C	B		B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 68.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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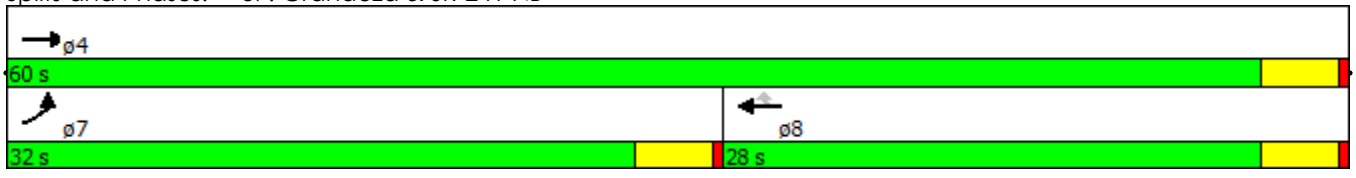
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	420	730	170	350	0	0
Future Volume (vph)	420	730	170	350	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				285		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	442	768	179	368	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	32.0	60.0	28.0	28.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	13.3	31.7	9.8	9.8		
Actuated g/C Ratio	0.42	1.00	0.31	0.31		
v/c Ratio	0.60	0.41	0.31	0.56		
Control Delay	11.5	0.7	10.8	6.7		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	11.5	0.7	10.8	6.7		
LOS	B	A	B	A		
Approach Delay		4.6	8.0			
Approach LOS		A	A			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 31.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 5.7 Intersection LOS: A
Intersection Capacity Utilization 68.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 37: Grandeza & SR-241 NB

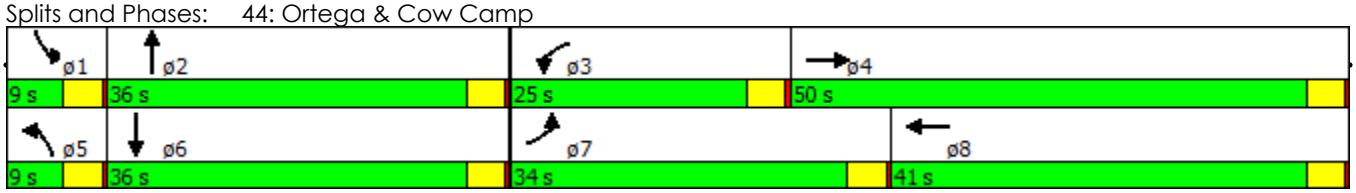


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	770	410	10	190	940	100	10	750	60	30	120	630
Future Volume (vph)	770	410	10	190	940	100	10	750	60	30	120	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3705	0	1770	3654	0	1770	3669	0	1770	3103	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3705	0	1770	3654	0	1770	3669	0	1770	3103	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			10			7			439	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	811	443	0	200	1094	0	11	852	0	32	789	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	34.0	50.0		25.0	41.0		9.0	36.0		9.0	36.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	28.7	48.0		17.3	36.5		5.0	32.1		5.0	35.6	
Actuated g/C Ratio	0.25	0.42		0.15	0.32		0.04	0.28		0.04	0.31	
v/c Ratio	0.91	0.29		0.75	0.93		0.14	0.82		0.42	0.86dr	
Control Delay	58.0	23.6		64.9	53.1		59.7	47.0		72.1	17.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.0	23.6		64.9	53.1		59.7	47.0		72.1	17.0	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		45.9			54.9			47.2			19.2	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 114.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 43.7 Intersection LOS: D
Intersection Capacity Utilization 86.7% ICU Level of Service E
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 44: Ortega & Cow Camp

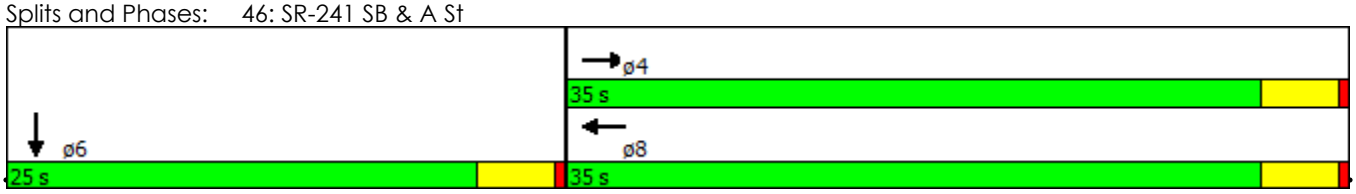


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	200	160	0	120	0	0	0	0	0	0	250
Future Volume (vph)	0	200	160	0	120	0	0	0	0	0	0	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1751	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1751	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		99									724	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	379	0	0	126	0	0	0	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		12.2			12.2						21.2	
Actuated g/C Ratio		0.29			0.29						0.51	
v/c Ratio		0.65			0.23						0.22	
Control Delay		14.7			11.6						0.4	
Queue Delay		0.0			0.0						0.0	
Total Delay		14.7			11.6						0.4	
LOS		B			B						A	
Approach Delay		14.7			11.6						0.4	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 41.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 46: SR-241 SB & A St



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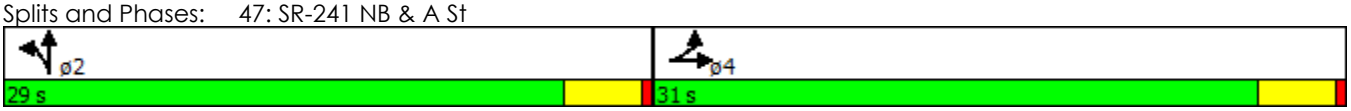
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	0	0	0	0	0	120	0	0	0	0	0
Future Volume (vph)	200	0	0	0	0	0	120	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	211	0	0	0	0	0	126	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	31.0	31.0					29.0	29.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	10.8						29.6					
Actuated g/C Ratio	0.22						0.61					
v/c Ratio	0.54						0.12					
Control Delay	20.6						5.2					
Queue Delay	0.0						0.0					
Total Delay	20.6						5.2					
LOS	C						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 48.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

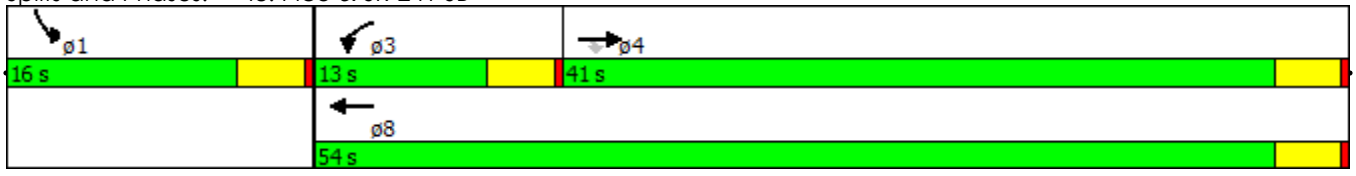


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1740	710	190	750	0	0	0	0	250	0	510
Future Volume (vph)	0	1740	710	190	750	0	0	0	0	250	0	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			662									431
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1832	747	200	789	0	0	0	0	263	0	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		41.0	41.0	13.0	54.0					16.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		37.0	37.0	9.0	50.0					11.9		69.9
Actuated g/C Ratio		0.53	0.53	0.13	0.72					0.17		1.00
v/c Ratio		0.98	0.67	0.88	0.31					0.87		0.34
Control Delay		34.0	5.0	68.8	4.0					59.2		0.6
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.0	5.0	68.8	4.0					59.2		0.6
LOS		C	A	E	A					E		A
Approach Delay		25.6			17.1							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 22.6 Intersection LOS: C
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1120	850	70	740	0	200	0	280	0	0	0
Future Volume (vph)	0	1120	850	70	740	0	200	0	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			815						218			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1179	895	74	779	0	211	0	295	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		37.0		11.0	48.0		22.0		22.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		27.2	60.0	6.8	32.9		15.6		18.7			
Actuated g/C Ratio		0.45	1.00	0.11	0.55		0.26		0.31			
v/c Ratio		0.74	0.58	0.37	0.40		0.46		0.46			
Control Delay		17.1	1.6	34.0	7.8		23.9		9.4			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		17.1	1.6	34.0	7.8		23.9		9.4			
LOS		B	A	C	A		C		A			
Approach Delay		10.4			10.1							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 11.1 Intersection LOS: B
Intersection Capacity Utilization 56.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB

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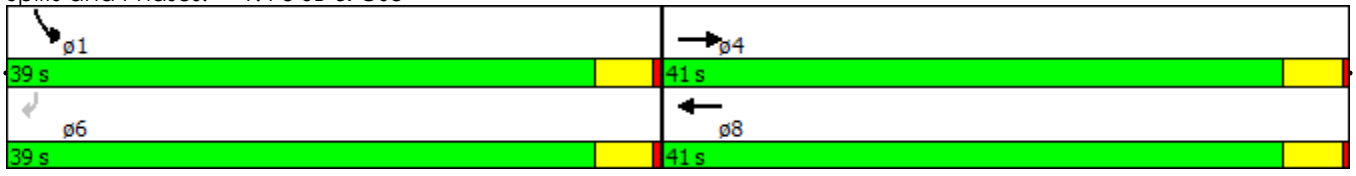
HCM Signalized Intersection Data Set 12 2035 Cumulative With SR-241 Extension – Project Alternative 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Future Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			779						19
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1137	421	0	1558	779	0	0	0	579	0	716
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		41.0			41.0					39.0		39.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		31.9	75.1		31.9	75.1				35.2		35.2
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.47		0.47
v/c Ratio		0.53	0.27		0.72	0.49				0.36		0.54
Control Delay		16.8	0.4		19.9	1.1				14.4		16.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		16.8	0.4		19.9	1.1				14.4		16.7
LOS		B	A		B	A				B		B
Approach Delay		12.4			13.6							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 59.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

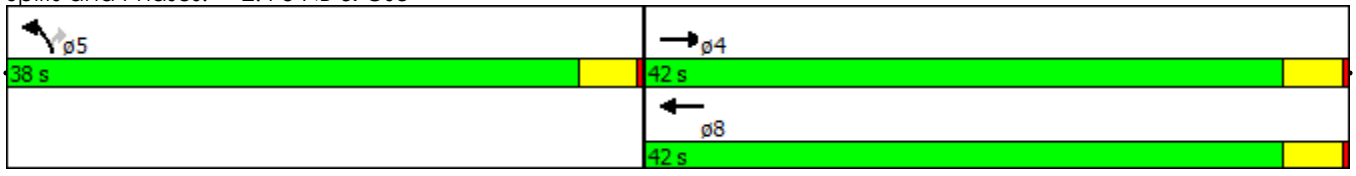


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1160	480	0	2020	1330	340	0	480	0	0	0
Future Volume (vph)	0	1160	480	0	2020	1330	340	0	480	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			498			1091			30			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1221	505	0	2126	1400	358	0	505	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		42.0			42.0		38.0		38.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		36.7	71.2		36.7	71.2	26.4		26.4			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.37		0.37			
v/c Ratio		0.47	0.33		0.81	0.88	0.28		0.83			
Control Delay		12.6	0.6		18.9	8.8	16.2		32.5			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		12.6	0.6		18.9	8.8	16.2		32.5			
LOS		B	A		B	A	B		C			
Approach Delay		9.1			14.9							
Approach LOS		A			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 71.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 58.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

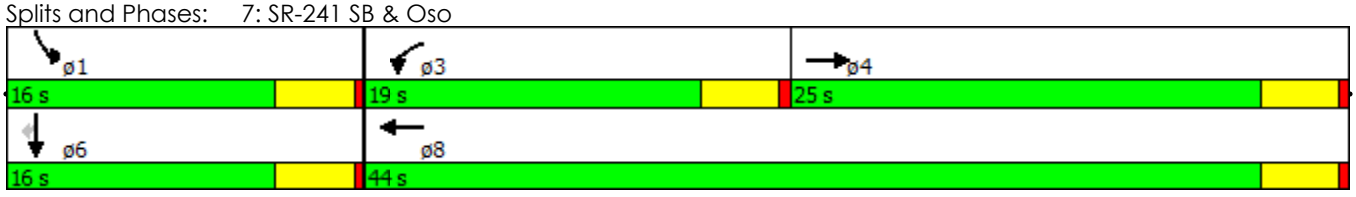


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	670	300	110	1610	0	0	0	0	50	0	80
Future Volume (vph)	0	670	300	110	1610	0	0	0	0	50	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			316									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	705	316	116	1695	0	0	0	0	53	0	84
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		19.0	44.0					16.0	16.0	16.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		17.0	47.7	8.5	27.2					8.0		12.3
Actuated g/C Ratio		0.36	1.00	0.18	0.57					0.17		0.26
v/c Ratio		0.39	0.20	0.37	0.58					0.09		0.18
Control Delay		13.1	0.3	22.1	7.1					18.2		6.0
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		13.1	0.3	22.1	7.1					18.2		6.0
LOS		B	A	C	A					B		A
Approach Delay		9.1			8.1							
Approach LOS		A			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 47.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: SR-241 SB & Oso

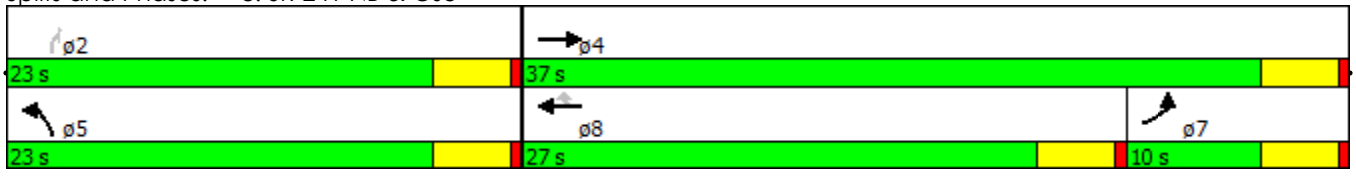


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	570	0	0	1300	240	470	0	40	0	0	0
Future Volume (vph)	160	570	0	0	1300	240	470	0	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						253			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	600	0	0	1368	253	495	0	42	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	10.0	37.0			27.0	27.0	23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.1	29.3			21.7	21.7	19.3		19.3			
Actuated g/C Ratio	0.11	0.52			0.38	0.38	0.34		0.34			
v/c Ratio	0.46	0.33			0.70	0.34	0.42		0.07			
Control Delay	29.9	8.2			17.5	3.5	17.1		1.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	29.9	8.2			17.5	3.5	17.1		1.1			
LOS	C	A			B	A	B		A			
Approach Delay		12.9			15.3							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

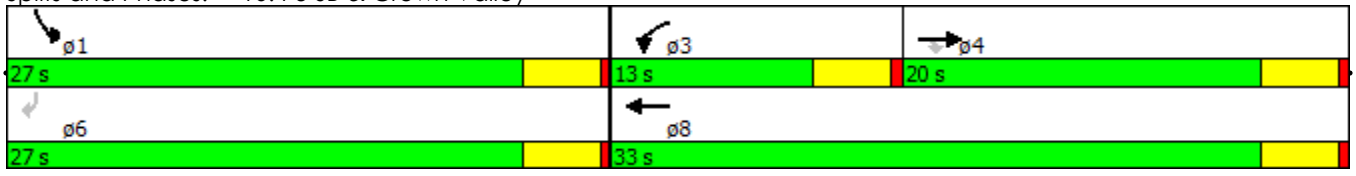


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1660	240	370	1230	0	0	0	0	1270	0	760
Future Volume (vph)	0	1660	240	370	1230	0	0	0	0	1270	0	760
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1747	253	389	1295	0	0	0	0	1337	0	800
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.87	0.43	0.76	0.53					0.70		0.71
Control Delay		27.1	5.4	35.9	11.7					18.0		18.0
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		27.1	5.4	35.9	11.7					18.0		18.0
LOS		C	A	D	B					B		B
Approach Delay		24.4			17.3							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.0 Intersection LOS: B
Intersection Capacity Utilization 64.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

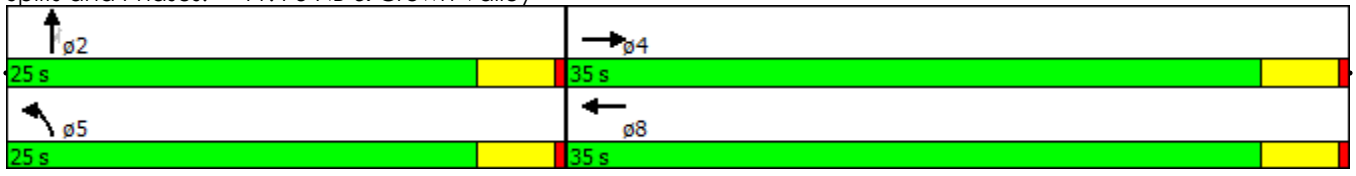


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	760	0	1340	1310	330	0	550	0	0	0
Future Volume (vph)	0	2100	760	0	1340	1310	330	0	550	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5917	1283	0	4570	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5917	1260	0	4570	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66	536		304	689		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			33%			50%	10%		47%			
Lane Group Flow (vph)	0	2475	536	0	2101	689	312	307	307	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.80	0.43		0.84	0.51	0.53	0.59	0.57			
Control Delay		14.1	1.1		14.4	1.3	19.6	20.5	19.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		14.1	1.1		14.4	1.3	19.6	20.5	19.9			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.8			11.2			20.0				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	520	490	40	450	600
Future Volume (vph)	130	520	490	40	450	600
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		547		42		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	547	516	42	474	632
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	16.1	25.9	16.1	36.1
Actuated g/C Ratio	0.18	0.18	0.30	0.48	0.30	0.67
v/c Ratio	0.42	0.76	0.93	0.05	0.90	0.51
Control Delay	23.3	10.1	47.9	2.2	44.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	10.1	47.9	2.2	44.0	7.0
LOS	C	B	D	A	D	A
Approach Delay	12.7		44.5			22.9
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1250	620
Future Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1250	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				463
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1243	0	11	1316	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		20.0	51.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.8	16.7		6.2	5.8		16.1	54.6		5.0	36.1	36.1
Actuated g/C Ratio	0.19	0.20		0.07	0.07		0.19	0.65		0.06	0.43	0.43
v/c Ratio	0.85	0.25		0.08	0.17		0.81	0.34		0.10	0.82	0.71
Control Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	27.2	11.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	48.2	1.5
Total Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	75.4	12.5
LOS	D	B		D	C		D	A		D	E	B
Approach Delay		42.4			32.9			16.2			54.5	
Approach LOS		D			C			B			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 83.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.6 Intersection LOS: D
Intersection Capacity Utilization 81.0% ICU Level of Service D
Analysis Period (min) 15

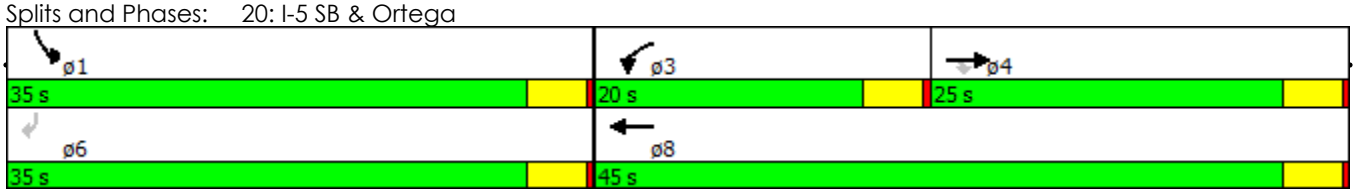
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1240	460	530	870	0	0	0	0	960	0	1010
Future Volume (vph)	0	1240	460	530	870	0	0	0	0	960	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421									204
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1305	484	558	916	0	0	0	0	1011	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.88	0.68	0.82	0.48					0.74		0.78
Control Delay		36.9	10.2	42.0	13.7					24.9		21.9
Queue Delay		2.5	0.0	0.0	0.5					0.0		0.0
Total Delay		39.4	10.2	42.0	14.2					24.9		21.9
LOS		D	B	D	B					C		C
Approach Delay		31.5			24.7							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 26.5 Intersection LOS: C
Intersection Capacity Utilization 84.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

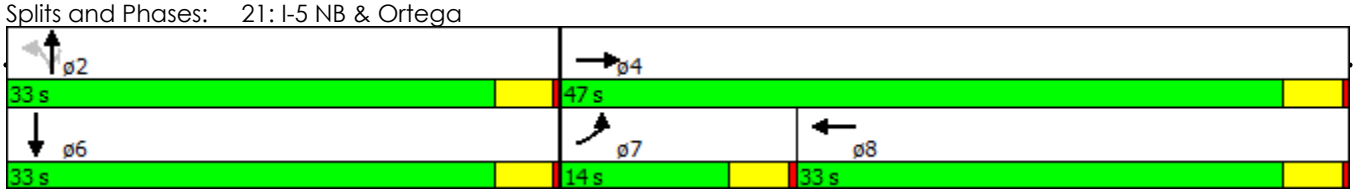


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1430	780	0	1930	10	280	10	750	0	0	10
Future Volume (vph)	10	1430	780	0	1930	10	280	10	750	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5367	1362	0	5529	0	0	1691	1583	0	1611	0
Flt Permitted	0.950							0.831				
Satd. Flow (perm)	1770	5367	1337	0	5529	0	0	1441	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95	525		1			22	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			36%						33%			
Lane Group Flow (vph)	11	1801	525	0	2043	0	0	566	529	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	37.1	74.3		35.0			29.2	29.2		29.2	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.39	0.39		0.39	
v/c Ratio	0.08	0.66	0.39		0.78			0.98	0.80		0.01	
Control Delay	34.7	14.2	0.9		20.1			58.0	29.8		0.0	
Queue Delay	0.0	21.6	0.0		0.0			0.0	0.0		0.0	
Total Delay	34.7	35.8	0.9		20.1			58.0	29.8		0.0	
LOS	C	D	A		C			E	C		A	
Approach Delay		28.0			20.1			44.4			0.0	
Approach LOS		C			C			D			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 28.2 Intersection LOS: C
Intersection Capacity Utilization 82.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

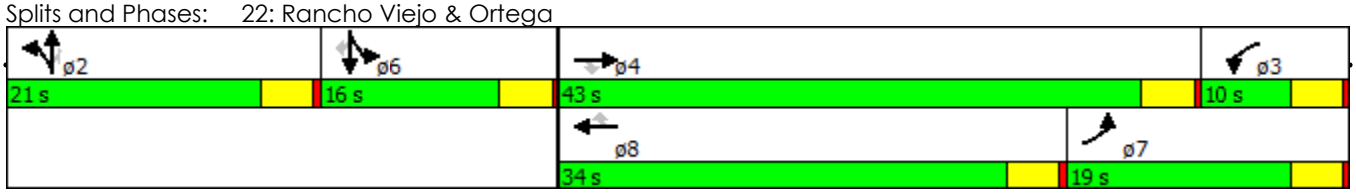


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1250	470	80	1740	440	280	160	40	220	190	120
Future Volume (vph)	270	1250	470	80	1740	440	280	160	40	220	190	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1853	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1853	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			435			460			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	284	1316	495	84	1832	463	295	168	42	209	223	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	19.0	43.0	43.0	10.0	34.0	34.0	21.0	21.0	21.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	41.0	41.0	6.0	30.0	30.0	17.0	17.0	17.0	12.0	12.0	12.0
Actuated g/C Ratio	0.17	0.46	0.46	0.07	0.33	0.33	0.19	0.19	0.19	0.13	0.13	0.13
v/c Ratio	0.96	0.79	0.55	0.71	1.00	0.56	0.44	0.48	0.10	0.89	0.90	0.36
Control Delay	83.2	25.9	5.5	73.7	52.7	5.2	34.7	37.8	0.5	75.6	77.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.2	25.9	5.5	73.7	52.7	5.2	34.7	37.8	0.5	75.6	77.4	6.5
LOS	F	C	A	E	D	A	C	D	A	E	E	A
Approach Delay		28.9			44.2			32.9			60.7	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 39.0 Intersection LOS: D
Intersection Capacity Utilization 86.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

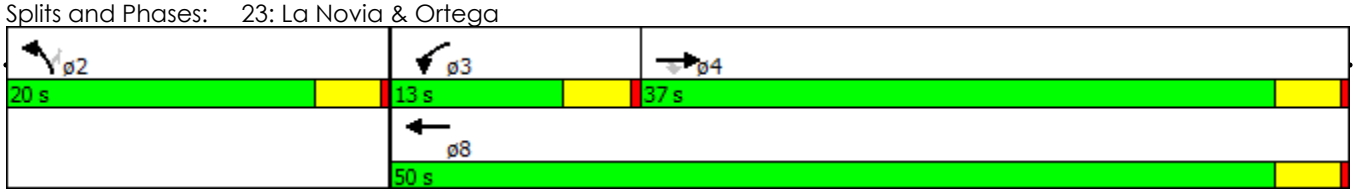


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1110	280	230	1980	340	200
Future Volume (vph)	1110	280	230	1980	340	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		271				211
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1168	295	242	2084	358	211
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	37.0	37.0	13.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	32.8	32.8	8.7	45.5	16.0	16.0
Actuated g/C Ratio	0.47	0.47	0.13	0.65	0.23	0.23
v/c Ratio	0.71	0.34	0.57	0.92	0.45	0.41
Control Delay	17.7	3.3	34.3	18.9	25.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	3.3	34.3	18.9	25.3	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.8			20.5	18.3	
Approach LOS	B			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 18.3 Intersection LOS: B
Intersection Capacity Utilization 74.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

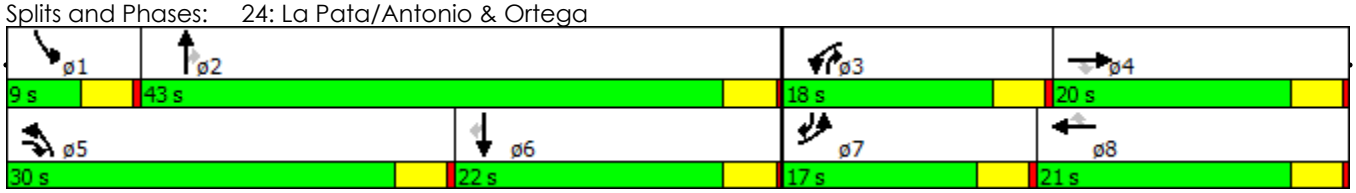


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	410	160	770	260	420	10	720	760	170	10	1030	830
Future Volume (vph)	410	160	770	260	420	10	720	760	170	10	1030	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			179			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	432	168	811	274	442	11	758	800	179	11	1084	874
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	30.0	18.0	21.0	21.0	30.0	43.0	18.0	9.0	22.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.0	14.0	40.1	14.0	15.0	15.0	26.0	46.3	60.3	5.0	18.0	31.0
Actuated g/C Ratio	0.15	0.16	0.46	0.16	0.17	0.17	0.30	0.53	0.68	0.06	0.20	0.35
v/c Ratio	0.83	0.29	1.09	0.98	0.71	0.03	0.73	0.27	0.16	0.11	0.95	0.77
Control Delay	51.7	33.8	84.8	87.3	41.3	0.1	32.9	12.6	1.3	42.9	52.7	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	33.8	84.8	87.3	41.3	0.1	32.9	12.6	1.3	42.9	52.7	25.6
LOS	D	C	F	F	D	A	C	B	A	D	D	C
Approach Delay		68.6			58.0			20.3			40.6	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 43.5 Intersection LOS: D
Intersection Capacity Utilization 93.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

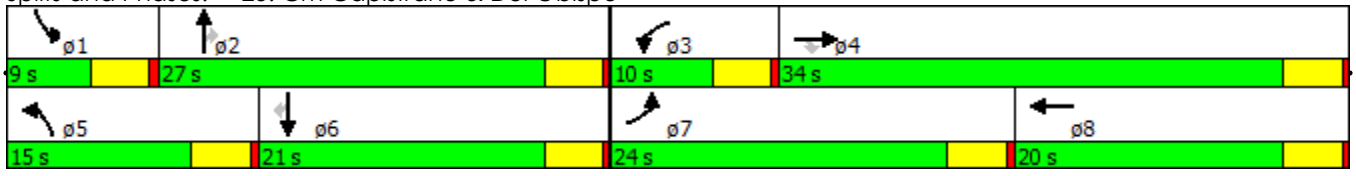


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Future Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			346		5				177			453
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	547	432	137	526	0	474	442	126	32	284	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	34.0	34.0	10.0	20.0		15.0	27.0	27.0	9.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.7	28.7	28.7	6.0	15.0		11.0	28.5	28.5	5.0	17.0	17.0
Actuated g/C Ratio	0.25	0.36	0.36	0.08	0.19		0.14	0.36	0.36	0.06	0.22	0.22
v/c Ratio	0.93	0.42	0.56	0.52	0.78		0.99	0.66	0.19	0.29	0.71	0.66
Control Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
LOS	E	B	A	D	D		E	C	A	D	D	A
Approach Delay		27.8			40.0			46.7			21.5	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 33.8		Intersection LOS: C	
Intersection Capacity Utilization 76.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

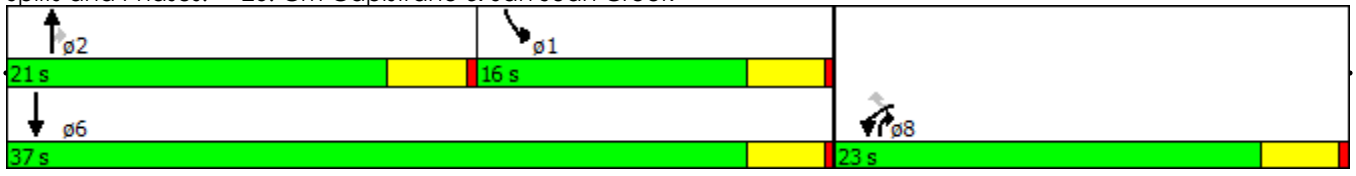


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	710	540	510	640	520	550
Future Volume (vph)	710	540	510	640	520	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	350		20		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	906	409	537	674	547	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	21.0	23.0	16.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.6	18.6	17.0	35.6	12.0	33.0
Actuated g/C Ratio	0.31	0.31	0.29	0.60	0.20	0.55
v/c Ratio	0.84	0.61	0.53	0.72	0.79	0.30
Control Delay	27.4	7.9	20.4	11.4	33.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	7.9	20.4	11.4	33.1	7.7
LOS	C	A	C	B	C	A
Approach Delay	21.3		15.4			20.1
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	640	350	800	50	560	700
Future Volume (vph)	640	350	800	50	560	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		368		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	674	368	842	53	589	737
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	19.0		24.0		17.0	41.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	14.5	59.5	20.4	59.5	12.7	37.0
Actuated g/C Ratio	0.24	1.00	0.34	1.00	0.21	0.62
v/c Ratio	0.81	0.23	0.70	0.03	0.81	0.33
Control Delay	30.4	0.3	20.8	0.0	32.9	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	0.3	20.8	0.0	32.9	6.0
LOS	C	A	C	A	C	A
Approach Delay	19.8		19.6			17.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	860	390	340
Future Volume (vph)	520	630	240	860	390	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.649	0.950	
Satd. Flow (perm)	1863	1493	0	2297	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				284
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1158	411	358
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	38.0	38.0	38.0	38.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.2	32.2		32.2	18.1	18.1
Actuated g/C Ratio	0.55	0.55		0.55	0.31	0.31
v/c Ratio	0.53	0.59		0.91	0.75	0.52
Control Delay	10.5	3.1		24.9	29.8	7.6
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	10.5	3.1		24.9	29.8	7.6
LOS	B	A		C	C	A
Approach Delay	6.4			24.9	19.4	
Approach LOS	A			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 89.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Future Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				537
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	452	84	0	337	158	105	232	0	0	369	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	21.0	21.0	21.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		16.6	16.6		12.6	12.6	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.28	0.28		0.21	0.21	0.30	0.30			0.30	0.30
v/c Ratio		0.91	0.17		0.85	0.34	0.54	0.41			0.71	0.63
Control Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
LOS		D	A		D	A	C	B			C	A
Approach Delay		39.8			32.9			22.6			14.7	
Approach LOS		D			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

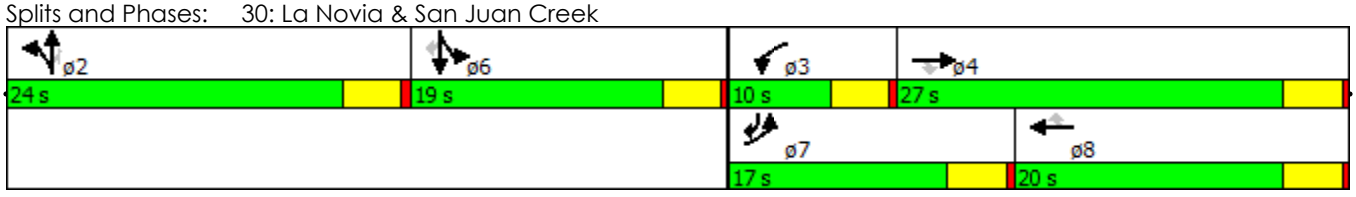
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Future Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			284			177			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	126	95	53	221	284	137	263	42	179	168	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	27.0	27.0	10.0	20.0	20.0	24.0	24.0	24.0	19.0	19.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.0	22.5	22.5	5.9	13.2	13.2	20.1	20.1	20.1	15.1	15.1	30.0
Actuated g/C Ratio	0.15	0.30	0.30	0.08	0.18	0.18	0.27	0.27	0.27	0.20	0.20	0.40
v/c Ratio	0.61	0.23	0.17	0.38	0.68	0.58	0.29	0.53	0.08	0.51	0.45	0.37
Control Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
LOS	D	C	A	D	D	A	C	C	A	C	C	A
Approach Delay		25.7			24.7			25.5			19.4	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 75.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 23.4		Intersection LOS: C	
Intersection Capacity Utilization 56.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

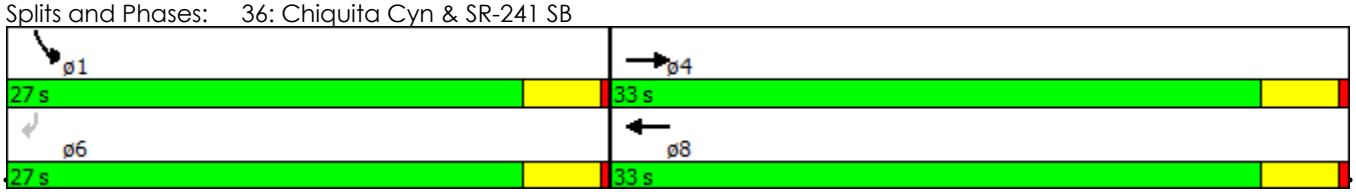


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	470	140	0	290	170
Future Volume (vph)	0	470	140	0	290	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						179
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	495	147	0	305	179
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		33.0	33.0		27.0	27.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		18.2	18.2		23.3	23.3
Actuated g/C Ratio		0.37	0.37		0.47	0.47
v/c Ratio		0.72	0.22		0.37	0.21
Control Delay		19.9	10.9		11.7	3.0
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		19.9	10.9		11.7	3.0
LOS		B	B		B	A
Approach Delay		19.9	10.9		8.5	
Approach LOS		B	B		A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 49.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 66.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	350	410	140	620	0	0
Future Volume (vph)	350	410	140	620	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				183		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	432	147	653	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	22.0	60.0	38.0	38.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	14.0	44.7	21.8	21.8		
Actuated g/C Ratio	0.31	1.00	0.49	0.49		
v/c Ratio	0.66	0.23	0.16	0.79		
Control Delay	22.5	0.3	6.7	14.9		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	22.5	0.3	6.7	14.9		
LOS	C	A	A	B		
Approach Delay		10.5	13.4			
Approach LOS		B	B			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 44.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 66.4% ICU Level of Service C
Analysis Period (min) 15

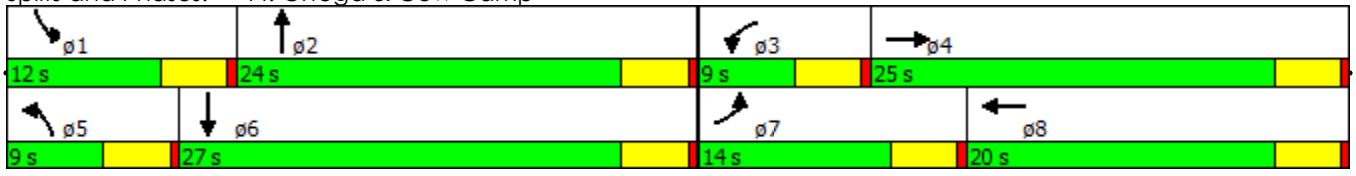
Splits and Phases: 37: Grandeza & SR-241 NB

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	490	830	10	40	270	20	10	80	210	90	610	630
Future Volume (vph)	490	830	10	40	270	20	10	80	210	90	610	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3679	0	1770	3229	0	1770	3376	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3679	0	1770	3229	0	1770	3376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			11			221			397	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	516	885	0	42	305	0	11	305	0	95	1305	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	14.0	25.0		9.0	20.0		9.0	24.0		12.0	27.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	10.1	21.8		5.1	12.6		5.1	21.0		7.4	28.4	
Actuated g/C Ratio	0.16	0.34		0.08	0.19		0.08	0.32		0.11	0.44	
v/c Ratio	0.94	0.71		0.30	0.42		0.08	0.26		0.47	0.77	
Control Delay	57.1	24.2		36.9	24.1		31.8	6.7		37.2	16.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	57.1	24.2		36.9	24.1		31.8	6.7		37.2	16.1	
LOS	E	C		D	C		C	A		D	B	
Approach Delay		36.4			25.6			7.6			17.5	
Approach LOS		D			C			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp

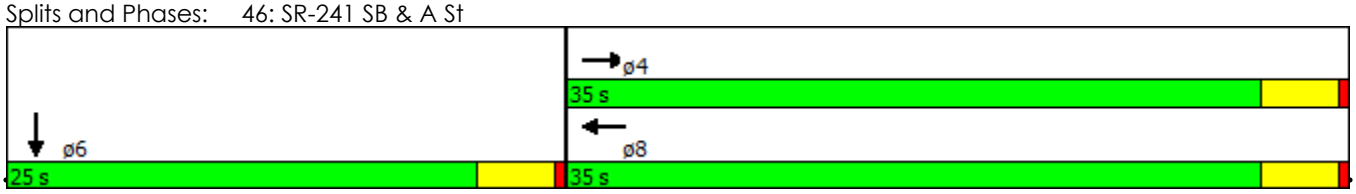


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	210	180	0	90	0	0	0	0	0	0	310
Future Volume (vph)	0	210	180	0	90	0	0	0	0	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1747	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1747	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		106									782	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	410	0	0	95	0	0	0	0	0	326	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		12.9			12.9						21.2	
Actuated g/C Ratio		0.31			0.31						0.50	
v/c Ratio		0.67			0.17						0.27	
Control Delay		15.1			10.7						0.6	
Queue Delay		0.0			0.0						0.0	
Total Delay		15.1			10.7						0.6	
LOS		B			B						A	
Approach Delay		15.1			10.7						0.6	
Approach LOS		B			B						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 42.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 47.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 46: SR-241 SB & A St



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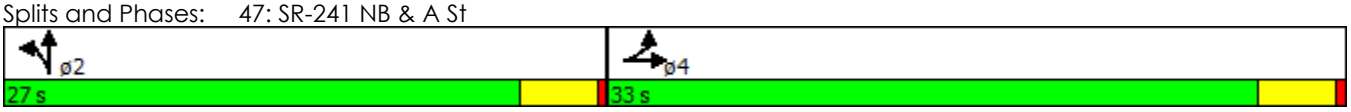
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	0	0	0	0	0	90	0	0	0	0	0
Future Volume (vph)	210	0	0	0	0	0	90	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	221	0	0	0	0	0	95	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	33.0	33.0					27.0	27.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	10.8						27.4					
Actuated g/C Ratio	0.23						0.59					
v/c Ratio	0.54						0.09					
Control Delay	19.3						5.3					
Queue Delay	0.0						0.0					
Total Delay	19.3						5.3					
LOS	B						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 46.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 47.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

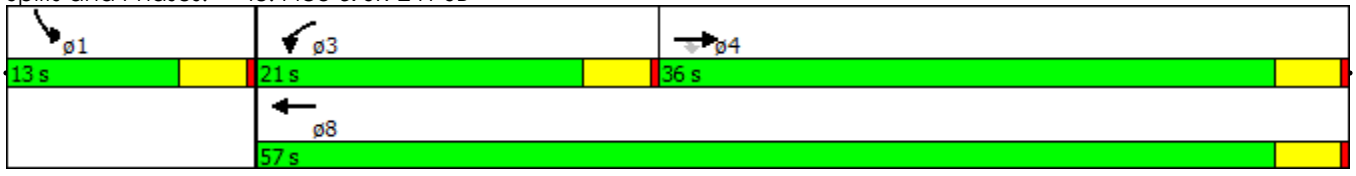


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	990	210	180	1310	0	0	0	0	50	0	560
Future Volume (vph)	0	990	210	180	1310	0	0	0	0	50	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									252
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1042	221	189	1379	0	0	0	0	53	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		36.0	36.0	21.0	57.0					13.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		27.6	27.6	12.6	40.5					8.7		47.9
Actuated g/C Ratio		0.58	0.58	0.26	0.85					0.18		1.00
v/c Ratio		0.51	0.23	0.41	0.46					0.17		0.37
Control Delay		11.8	2.6	23.1	3.0					26.4		0.7
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		11.8	2.6	23.1	3.0					26.4		0.7
LOS		B	A	C	A					C		A
Approach Delay		10.2			5.5							
Approach LOS		B			A							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 47.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 50.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB

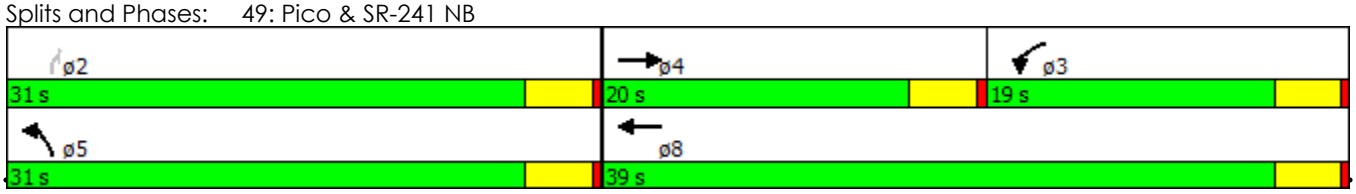


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	510	530	230	1050	0	440	0	110	0	0	0
Future Volume (vph)	0	510	530	230	1050	0	440	0	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			558						116			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	537	558	242	1105	0	463	0	116	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		20.0		19.0	39.0		31.0		31.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		14.2	66.3	12.9	31.1		27.1		27.1			
Actuated g/C Ratio		0.21	1.00	0.19	0.47		0.41		0.41			
v/c Ratio		0.71	0.36	0.70	0.67		0.64		0.16			
Control Delay		30.2	0.7	37.2	15.7		21.7		3.9			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		30.2	0.7	37.2	15.7		21.7		3.9			
LOS		C	A	D	B		C		A			
Approach Delay		15.2			19.5							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 61.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB



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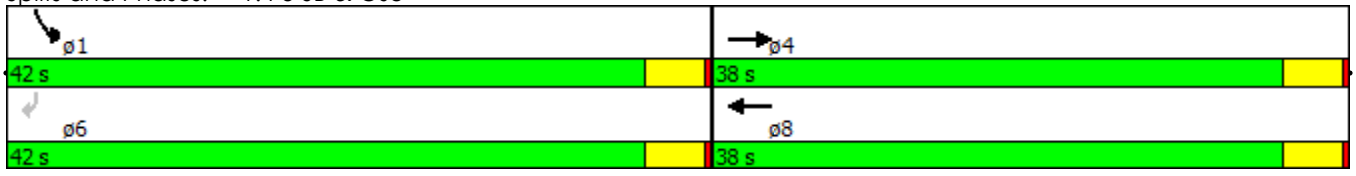
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1730	600	0	1420	610	0	0	0	1230	0	420
Future Volume (vph)	0	1730	600	0	1420	610	0	0	0	1230	0	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469			642						15
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1821	632	0	1495	642	0	0	0	1295	0	442
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		38.0			38.0					42.0		42.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		33.6	79.6		33.6	79.6				38.0		38.0
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.48		0.48
v/c Ratio		0.85	0.41		0.70	0.41				0.79		0.33
Control Delay		25.5	0.8		20.9	0.8				22.0		13.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		25.5	0.8		20.9	0.8				22.0		13.4
LOS		C	A		C	A				C		B
Approach Delay		19.1			14.9							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

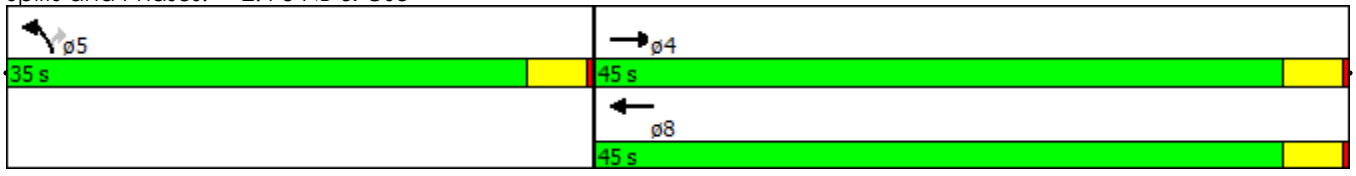


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Future Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190			684			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2663	421	0	1558	684	568	0	684	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		45.0			45.0		35.0		35.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		41.0	80.0		41.0	80.0	31.0		31.0			
Actuated g/C Ratio		0.51	1.00		0.51	1.00	0.39		0.39			
v/c Ratio		1.02	0.27		0.60	0.43	0.43		1.10			
Control Delay		44.2	0.4		14.9	0.9	19.2		93.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.2	0.4		14.9	0.9	19.2		93.1			
LOS		D	A		B	A	B		F			
Approach Delay		38.3			10.6							
Approach LOS		D			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 32.9		Intersection LOS: C	
Intersection Capacity Utilization 95.8%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	780	620	100	1020	0	0	0	0	180	0	60
Future Volume (vph)	0	780	620	100	1020	0	0	0	0	180	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			653									106
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	653	105	1074	0	0	0	0	189	0	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		17.0	42.0					18.0	18.0	18.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		15.1	45.4	8.4	22.2					12.5		14.7
Actuated g/C Ratio		0.33	1.00	0.19	0.49					0.28		0.32
v/c Ratio		0.49	0.41	0.32	0.43					0.20		0.11
Control Delay		14.1	0.8	21.3	7.3					15.2		2.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		14.1	0.8	21.3	7.3					15.2		2.4
LOS		B	A	C	A					B		A
Approach Delay		8.2			8.5							
Approach LOS		A			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 46.1%		ICU Level of Service A	
Analysis Period (min) 15			

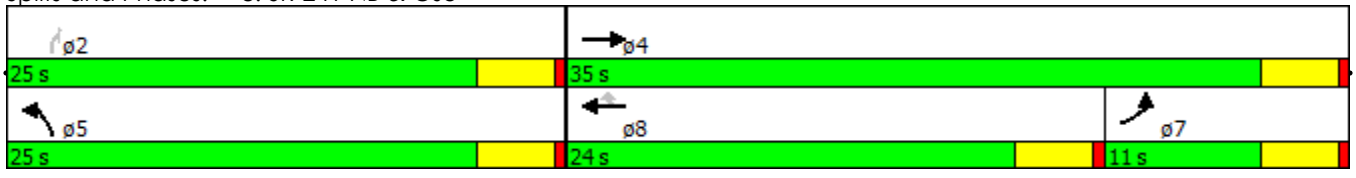
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	940	0	0	650	70	470	0	100	0	0	0
Future Volume (vph)	50	940	0	0	650	70	470	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	989	0	0	684	74	495	0	105	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	11.0	35.0			24.0	24.0	25.0		25.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.2	21.2			17.4	17.4	21.3		21.3			
Actuated g/C Ratio	0.12	0.42			0.34	0.34	0.42		0.42			
v/c Ratio	0.13	0.67			0.39	0.13	0.34		0.15			
Control Delay	22.6	13.9			14.2	3.8	12.1		4.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	22.6	13.9			14.2	3.8	12.1		4.9			
LOS	C	B			B	A	B		A			
Approach Delay		14.3			13.2							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 50.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 13.1 Intersection LOS: B
Intersection Capacity Utilization 46.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: SR-241 NB & Oso

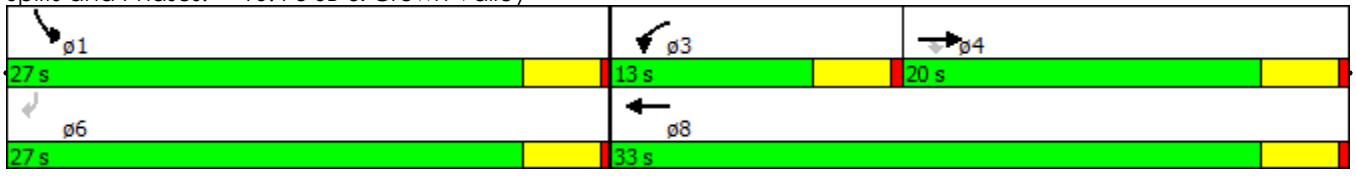


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1810	330	490	1380	0	0	0	0	1510	0	1060
Future Volume (vph)	0	1810	330	490	1380	0	0	0	0	1510	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			347									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1905	347	516	1453	0	0	0	0	1589	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.95	0.52	1.00	0.59					0.83		0.99
Control Delay		34.0	5.7	70.0	12.5					21.7		44.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.0	5.7	70.0	12.5					21.7		44.9
LOS		C	A	E	B					C		D
Approach Delay		29.6			27.5							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 29.7 Intersection LOS: C
Intersection Capacity Utilization 73.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2640	580	0	1660	1560	240	0	450	0	0	0
Future Volume (vph)	0	2640	580	0	1660	1560	240	0	450	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4575	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4575	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11	445		339	821		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2840	550	0	2568	821	228	253	246	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		39.0			39.0		21.0	21.0	21.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		35.0	60.0		35.0	60.0	17.0	17.0	17.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.28	0.28	0.28			
v/c Ratio		0.81	0.44		0.91	0.60	0.48	0.59	0.56			
Control Delay		12.2	1.1		16.5	2.0	21.9	23.9	22.7			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		12.2	1.1		16.5	2.0	21.9	23.9	22.7			
LOS		B	A		B	A	C	C	C			
Approach Delay		10.4			13.0			22.9				
Approach LOS		B			B			C				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 66.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	480	90	370	560
Future Volume (vph)	160	490	480	90	370	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		516		95		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	505	95	389	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	22.0	20.0	18.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	18.1	28.6	14.1	36.1
Actuated g/C Ratio	0.19	0.19	0.33	0.52	0.26	0.66
v/c Ratio	0.49	0.74	0.82	0.11	0.85	0.48
Control Delay	24.5	9.4	31.8	1.6	42.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	9.4	31.8	1.6	42.0	6.9
LOS	C	A	C	A	D	A
Approach Delay	13.1		27.0			20.8
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	640	10	150	10	10	10	160	1200	10	10	960	820
Future Volume (vph)	640	10	150	10	10	10	160	1200	10	10	960	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			2				610
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	674	169	0	11	22	0	168	1274	0	11	1011	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		20.0	68.0		9.0	57.0	57.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.4	26.9		8.0	6.2		16.1	71.7		5.0	53.3	53.3
Actuated g/C Ratio	0.22	0.24		0.07	0.05		0.14	0.63		0.04	0.47	0.47
v/c Ratio	0.87	0.35		0.09	0.21		0.67	0.40		0.14	0.61	0.84
Control Delay	55.8	10.2		49.8	40.2		61.6	11.9		59.4	25.1	16.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	18.4	8.0
Total Delay	55.8	10.2		49.8	40.2		61.6	11.9		59.4	43.6	24.8
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		46.7			43.4			17.7			35.1	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 113			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

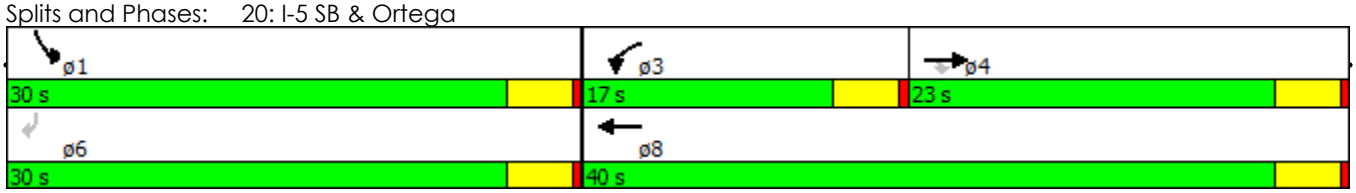
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1380	450	580	780	0	0	0	0	1220	0	1010
Future Volume (vph)	0	1380	450	580	780	0	0	0	0	1220	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			429									266
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1453	474	611	821	0	0	0	0	1284	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	17.0	40.0					30.0		30.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		19.0	19.0	13.0	36.0					26.0		26.0
Actuated g/C Ratio		0.27	0.27	0.19	0.51					0.37		0.37
v/c Ratio		0.96	0.65	0.94	0.43					0.99		0.79
Control Delay		41.7	8.5	53.7	11.5					45.8		19.7
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		41.7	8.5	53.7	11.5					45.8		19.7
LOS		D	A	D	B					D		B
Approach Delay		33.5			29.5							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 32.7 Intersection LOS: C
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

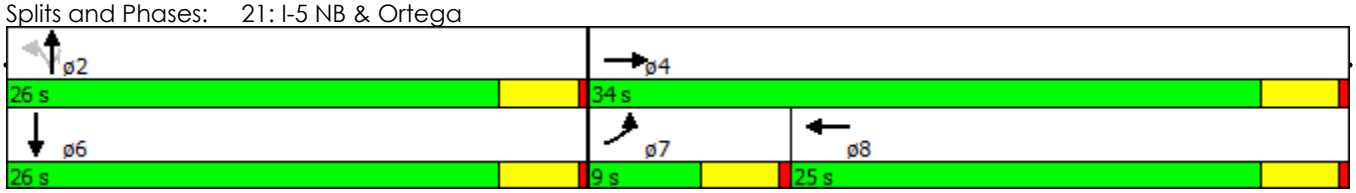


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1860	750	0	1890	10	220	10	650	0	0	10
Future Volume (vph)	10	1860	750	0	1890	10	220	10	650	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5457	1583	0	5529	0	0	1685	1583	0	1611	0
Flt Permitted	0.950							0.840				
Satd. Flow (perm)	1770	5457	1555	0	5529	0	0	1450	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39	615		2			4	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			22%						34%			
Lane Group Flow (vph)	11	2132	615	0	2000	0	0	476	451	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.0	60.0		28.2			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.37	0.37		0.37	
v/c Ratio	0.07	0.78	0.40		0.77			0.89	0.71		0.02	
Control Delay	26.7	14.5	0.8		17.8			40.7	20.3		0.0	
Queue Delay	0.0	47.8	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.7	62.3	0.8		17.8			40.7	20.3		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		48.4			17.8			30.8			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.7 Intersection LOS: C
Intersection Capacity Utilization 81.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

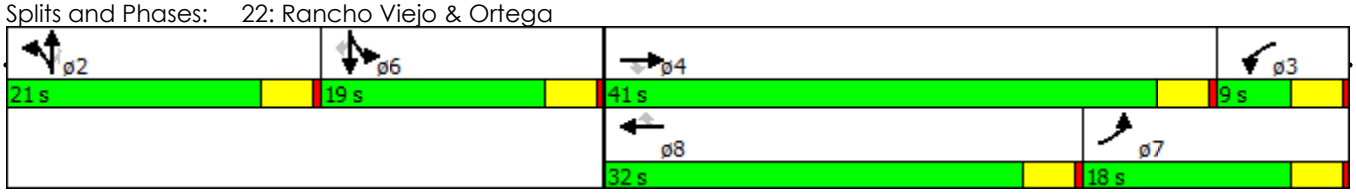


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1400	380	70	1220	250	460	130	50	380	150	160
Future Volume (vph)	200	1400	380	70	1220	250	460	130	50	380	150	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			302			263			158			168
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	211	1474	400	74	1284	263	484	137	53	276	282	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	18.0	41.0	41.0	9.0	32.0	32.0	21.0	21.0	21.0	19.0	19.0	19.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.2	37.1	37.1	5.0	26.9	26.9	17.0	17.0	17.0	15.0	15.0	15.0
Actuated g/C Ratio	0.15	0.42	0.42	0.06	0.30	0.30	0.19	0.19	0.19	0.17	0.17	0.17
v/c Ratio	0.80	0.96	0.51	0.74	0.77	0.40	0.71	0.38	0.13	0.92	0.91	0.41
Control Delay	59.4	41.5	7.5	83.1	31.5	5.0	40.2	35.4	0.6	73.1	71.4	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	41.5	7.5	83.1	31.5	5.0	40.2	35.4	0.6	73.1	71.4	9.0
LOS	E	D	A	F	C	A	D	D	A	E	E	A
Approach Delay		36.8			29.6			36.1			57.6	
Approach LOS		D			C			D			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 37.4 Intersection LOS: D
Intersection Capacity Utilization 84.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

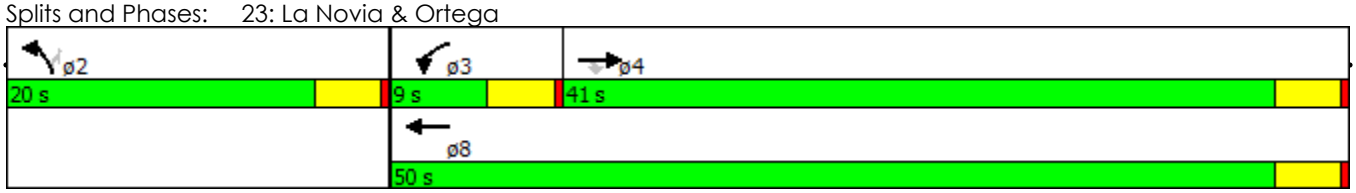


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1680	290	200	1330	250	160
Future Volume (vph)	1680	290	200	1330	250	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		207				139
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1768	305	211	1400	263	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	41.0	41.0	9.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	37.0	37.0	5.0	46.0	16.0	16.0
Actuated g/C Ratio	0.53	0.53	0.07	0.66	0.23	0.23
v/c Ratio	0.96	0.34	0.86	0.61	0.34	0.37
Control Delay	31.5	4.3	65.9	8.4	24.0	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	4.3	65.9	8.4	24.0	9.2
LOS	C	A	E	A	C	A
Approach Delay	27.5			15.9	18.2	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 75.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

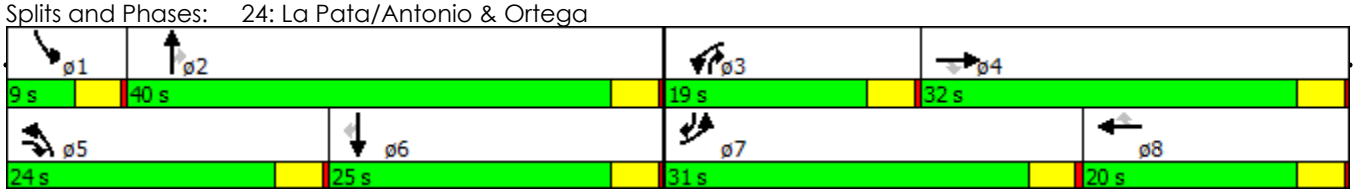


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	690	620	390	140	220	10	480	670	260	10	740	680
Future Volume (vph)	690	620	390	140	220	10	480	670	260	10	740	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92			185			98			142
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	726	653	411	147	232	11	505	705	274	11	779	716
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	31.0	32.0	24.0	19.0	20.0	20.0	24.0	40.0	19.0	9.0	25.0	31.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	23.9	23.2	40.8	12.1	11.4	11.4	17.6	41.2	53.3	5.1	21.2	45.1
Actuated g/C Ratio	0.26	0.26	0.45	0.13	0.13	0.13	0.19	0.46	0.59	0.06	0.23	0.50
v/c Ratio	0.78	0.70	0.55	0.62	0.50	0.03	0.73	0.28	0.29	0.11	0.59	0.45
Control Delay	37.8	35.3	15.0	50.2	41.7	0.2	42.0	17.0	6.3	47.2	34.2	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	35.3	15.0	50.2	41.7	0.2	42.0	17.0	6.3	47.2	34.2	11.2
LOS	D	D	B	D	D	A	D	B	A	D	C	B
Approach Delay		31.6			43.7			23.5			23.4	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 90.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 27.8 Intersection LOS: C
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

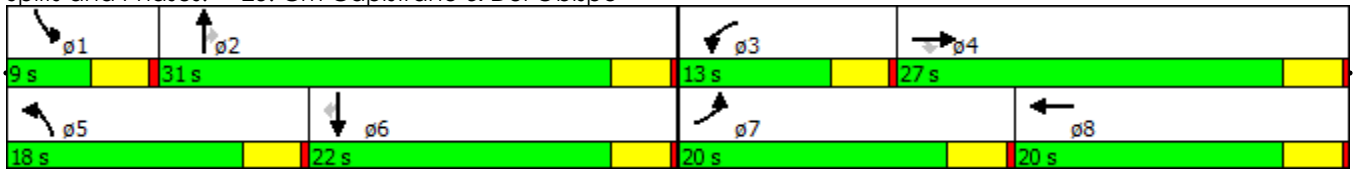


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Future Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3468	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3468	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			365		12				205			348
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	358	505	453	295	695	0	589	484	221	63	316	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	20.0	27.0	27.0	13.0	20.0		18.0	31.0	31.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.0	23.0	23.0	9.0	16.0		14.0	28.8	28.8	5.0	18.0	18.0
Actuated g/C Ratio	0.20	0.29	0.29	0.11	0.20		0.18	0.36	0.36	0.06	0.22	0.22
v/c Ratio	1.01	0.50	0.65	0.76	0.99		0.98	0.72	0.33	0.57	0.75	0.62
Control Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
LOS	F	C	B	D	E		E	C	A	E	D	A
Approach Delay		36.8			60.0			43.1			27.2	
Approach LOS		D			E			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 42.2		Intersection LOS: D	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

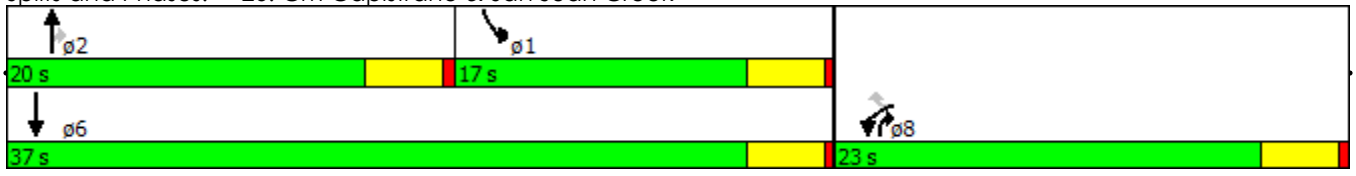


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	810	620	510	550	590	660
Future Volume (vph)	810	620	510	550	590	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46	353		17		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1036	470	537	579	621	695
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	20.0	23.0	17.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.0	19.0	16.0	35.0	13.0	33.0
Actuated g/C Ratio	0.32	0.32	0.27	0.58	0.22	0.55
v/c Ratio	0.95	0.69	0.57	0.63	0.84	0.36
Control Delay	39.1	11.0	21.8	9.6	34.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	11.0	21.8	9.6	34.8	8.2
LOS	D	B	C	A	C	A
Approach Delay	30.4		15.5			20.8
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 22.9 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

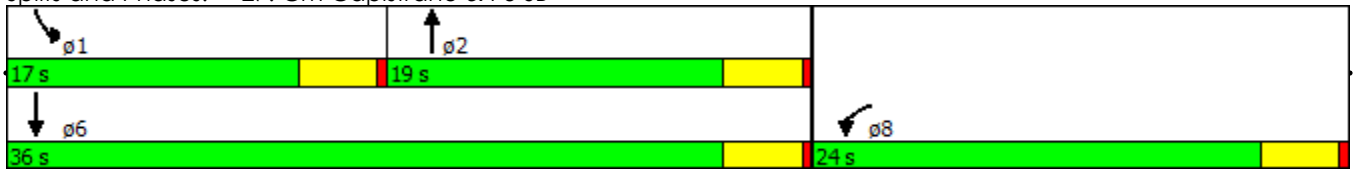


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	940	460	600	50	600	880
Future Volume (vph)	940	460	600	50	600	880
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		484		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	989	484	632	53	632	926
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		19.0		17.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	19.4	59.4	15.2	59.4	12.8	32.0
Actuated g/C Ratio	0.33	1.00	0.26	1.00	0.22	0.54
v/c Ratio	0.88	0.31	0.70	0.03	0.85	0.49
Control Delay	30.5	0.5	25.1	0.0	36.0	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	0.5	25.1	0.0	36.0	9.8
LOS	C	A	C	A	D	A
Approach Delay	20.6		23.2			20.4
Approach LOS	C		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

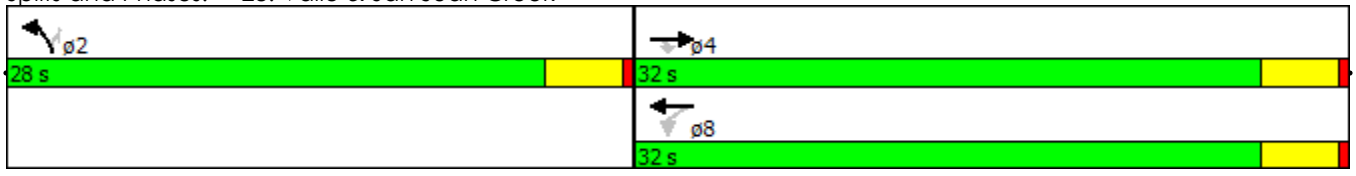


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	560	580	130	870	570	240
Future Volume (vph)	560	580	130	870	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.664	0.950	
Satd. Flow (perm)	1863	1493	0	2350	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				186
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	589	611	0	1053	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.0	28.0		28.0	24.0	24.0
Actuated g/C Ratio	0.47	0.47		0.47	0.40	0.40
v/c Ratio	0.68	0.60		0.96	0.85	0.34
Control Delay	17.4	3.8		37.3	30.5	5.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.4	3.8		37.3	30.5	5.4
LOS	B	A		D	C	A
Approach Delay	10.5			37.3	23.1	
Approach LOS	B			D	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 98.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

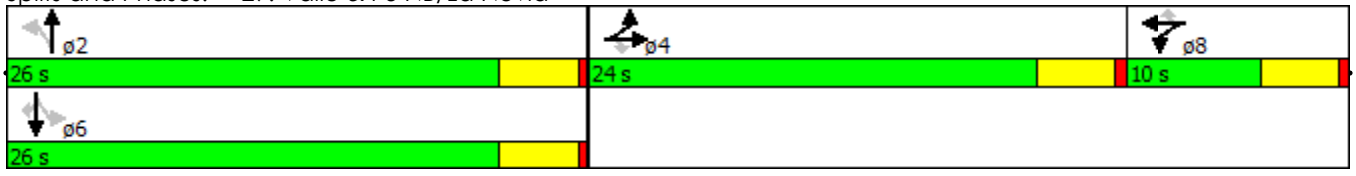


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Future Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1827	1583
Flt Permitted		0.961			0.991		0.445				0.623	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	829	1819	0	0	1160	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		12				400
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	495	74	0	116	116	189	368	0	0	348	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	10.0	10.0	10.0	26.0	26.0		26.0	26.0	26.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.4	18.4		6.1	6.1	22.4	22.4			22.4	22.4
Actuated g/C Ratio		0.33	0.33		0.11	0.11	0.40	0.40			0.40	0.40
v/c Ratio		0.85	0.13		0.58	0.42	0.58	0.51			0.76	0.46
Control Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
LOS		C	A		D	B	C	B			C	A
Approach Delay		30.8			26.0			19.7			16.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Future Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			274
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	105	21	105	105	274	95	200	11	211	263	274
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	14.0	20.0	20.0	14.0	20.0	20.0	23.0	23.0	23.0	23.0	23.0	14.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.9	12.2	12.2	8.7	9.8	9.8	19.1	19.1	19.1	19.1	19.1	32.0
Actuated g/C Ratio	0.12	0.17	0.17	0.12	0.13	0.13	0.26	0.26	0.26	0.26	0.26	0.44
v/c Ratio	0.54	0.34	0.06	0.50	0.42	0.63	0.21	0.41	0.02	0.46	0.54	0.32
Control Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.3			22.3			24.8			19.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 72.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

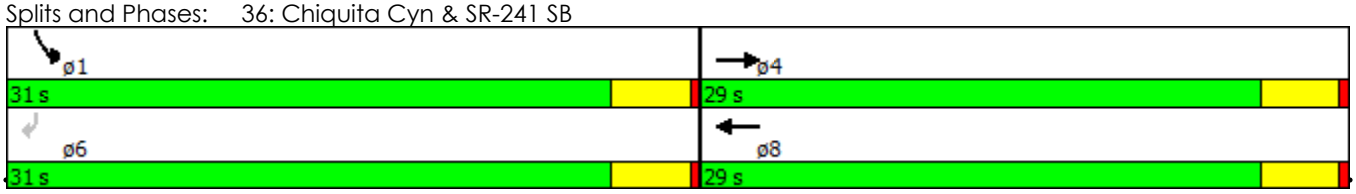
Splits and Phases: 30: La Novia & San Juan Creek

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	580	170	0	560	610
Future Volume (vph)	0	580	170	0	560	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						629
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	611	179	0	589	642
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		29.0	29.0		31.0	31.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		22.0	22.0		27.1	27.1
Actuated g/C Ratio		0.38	0.38		0.47	0.47
v/c Ratio		0.85	0.25		0.70	0.59
Control Delay		29.4	12.7		18.7	3.9
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		29.4	12.7		18.7	3.9
LOS		C	B		B	A
Approach Delay		29.4	12.7		11.0	
Approach LOS		C	B		B	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 68.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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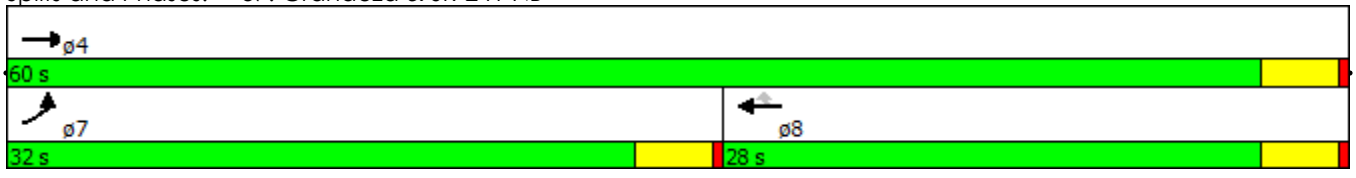
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	420	730	170	350	0	0
Future Volume (vph)	420	730	170	350	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				285		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	442	768	179	368	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	32.0	60.0	28.0	28.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	13.3	31.7	9.8	9.8		
Actuated g/C Ratio	0.42	1.00	0.31	0.31		
v/c Ratio	0.60	0.41	0.31	0.56		
Control Delay	11.5	0.7	10.8	6.7		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	11.5	0.7	10.8	6.7		
LOS	B	A	B	A		
Approach Delay		4.6	8.0			
Approach LOS		A	A			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 31.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 5.7 Intersection LOS: A
Intersection Capacity Utilization 68.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 37: Grandeza & SR-241 NB

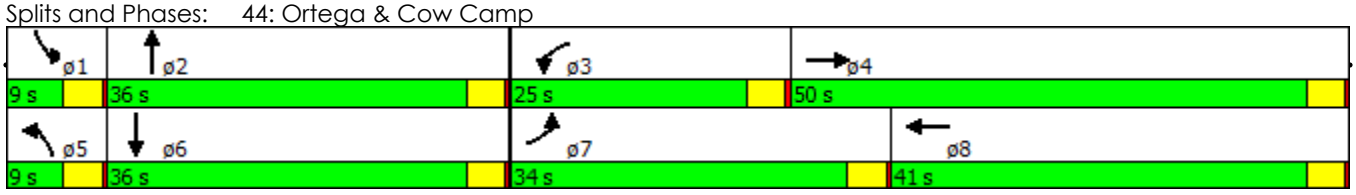


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	770	410	10	190	940	100	10	750	60	30	120	630
Future Volume (vph)	770	410	10	190	940	100	10	750	60	30	120	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3705	0	1770	3654	0	1770	3669	0	1770	3103	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3705	0	1770	3654	0	1770	3669	0	1770	3103	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			10			7			439	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	811	443	0	200	1094	0	11	852	0	32	789	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	34.0	50.0		25.0	41.0		9.0	36.0		9.0	36.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	28.7	48.0		17.3	36.5		5.0	32.1		5.0	35.6	
Actuated g/C Ratio	0.25	0.42		0.15	0.32		0.04	0.28		0.04	0.31	
v/c Ratio	0.91	0.29		0.75	0.93		0.14	0.82		0.42	0.86dr	
Control Delay	58.0	23.6		64.9	53.1		59.7	47.0		72.1	17.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.0	23.6		64.9	53.1		59.7	47.0		72.1	17.0	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		45.9			54.9			47.2			19.2	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 114.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 43.7 Intersection LOS: D
Intersection Capacity Utilization 86.7% ICU Level of Service E
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 44: Ortega & Cow Camp

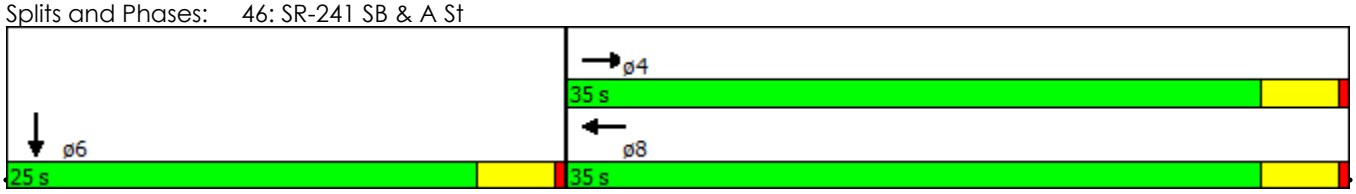


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	200	160	0	120	0	0	0	0	0	0	250
Future Volume (vph)	0	200	160	0	120	0	0	0	0	0	0	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1751	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1751	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		99									724	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	379	0	0	126	0	0	0	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		12.2			12.2						21.2	
Actuated g/C Ratio		0.29			0.29						0.51	
v/c Ratio		0.65			0.23						0.22	
Control Delay		14.7			11.6						0.4	
Queue Delay		0.0			0.0						0.0	
Total Delay		14.7			11.6						0.4	
LOS		B			B						A	
Approach Delay		14.7			11.6						0.4	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 41.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 46: SR-241 SB & A St



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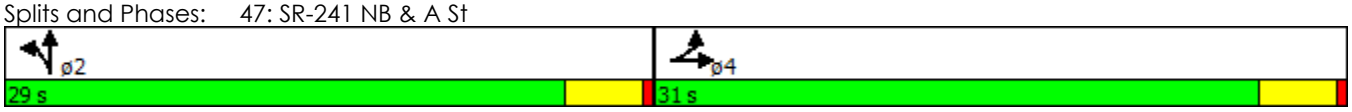
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	0	0	0	0	0	120	0	0	0	0	0
Future Volume (vph)	200	0	0	0	0	0	120	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	211	0	0	0	0	0	126	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	31.0	31.0					29.0	29.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	10.8						29.6					
Actuated g/C Ratio	0.22						0.61					
v/c Ratio	0.54						0.12					
Control Delay	20.6						5.2					
Queue Delay	0.0						0.0					
Total Delay	20.6						5.2					
LOS	C						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 48.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

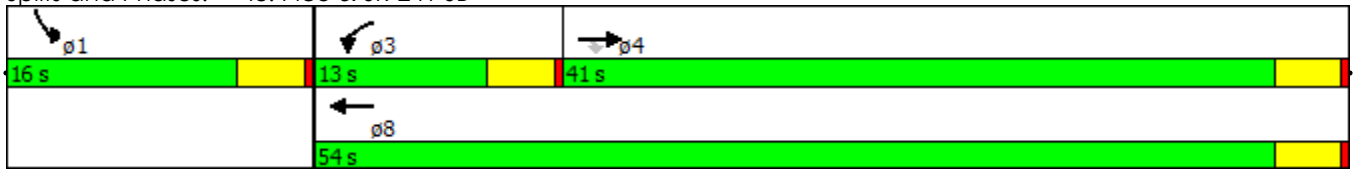


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1740	710	190	750	0	0	0	0	250	0	510
Future Volume (vph)	0	1740	710	190	750	0	0	0	0	250	0	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			662									431
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1832	747	200	789	0	0	0	0	263	0	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		41.0	41.0	13.0	54.0					16.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		37.0	37.0	9.0	50.0					11.9		69.9
Actuated g/C Ratio		0.53	0.53	0.13	0.72					0.17		1.00
v/c Ratio		0.98	0.67	0.88	0.31					0.87		0.34
Control Delay		34.0	5.0	68.8	4.0					59.2		0.6
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.0	5.0	68.8	4.0					59.2		0.6
LOS		C	A	E	A					E		A
Approach Delay		25.6			17.1							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 22.6 Intersection LOS: C
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1120	850	70	740	0	200	0	280	0	0	0
Future Volume (vph)	0	1120	850	70	740	0	200	0	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			815						218			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1179	895	74	779	0	211	0	295	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		37.0		11.0	48.0		22.0		22.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		27.2	60.0	6.8	32.9		15.6		18.7			
Actuated g/C Ratio		0.45	1.00	0.11	0.55		0.26		0.31			
v/c Ratio		0.74	0.58	0.37	0.40		0.46		0.46			
Control Delay		17.1	1.6	34.0	7.8		23.9		9.4			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		17.1	1.6	34.0	7.8		23.9		9.4			
LOS		B	A	C	A		C		A			
Approach Delay		10.4			10.1							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 11.1 Intersection LOS: B
Intersection Capacity Utilization 56.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB

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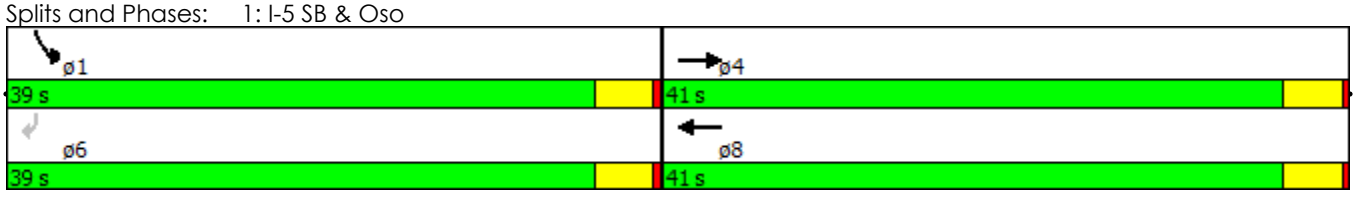
HCM Signalized Intersection Data Set 13 2035 Cumulative With SR-241 Extension – Project Alternative 3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Future Volume (vph)	0	1080	400	0	1480	740	0	0	0	550	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421			779						19
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1137	421	0	1558	779	0	0	0	579	0	716
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		41.0			41.0					39.0		39.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		31.9	75.1		31.9	75.1				35.2		35.2
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.47		0.47
v/c Ratio		0.53	0.27		0.72	0.49				0.36		0.54
Control Delay		16.8	0.4		19.9	1.1				14.4		16.7
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		16.8	0.4		19.9	1.1				14.4		16.7
LOS		B	A		B	A				B		B
Approach Delay		12.4			13.6							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 59.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB & Oso

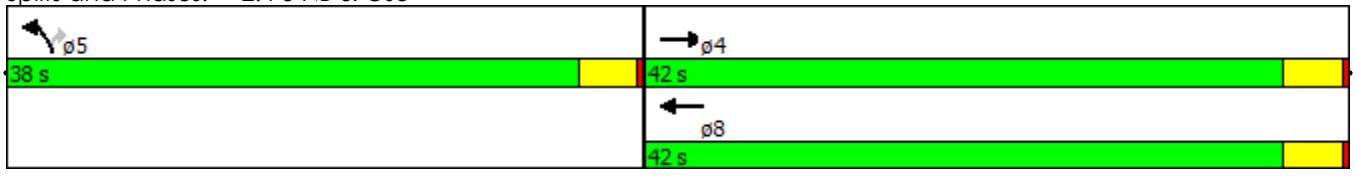


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	1160	480	0	2020	1330	340	0	480	0	0	0
Future Volume (vph)	0	1160	480	0	2020	1330	340	0	480	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			498			1091			30			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1221	505	0	2126	1400	358	0	505	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		42.0			42.0		38.0		38.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		36.7	71.2		36.7	71.2	26.4		26.4			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.37		0.37			
v/c Ratio		0.47	0.33		0.81	0.88	0.28		0.83			
Control Delay		12.6	0.6		18.9	8.8	16.2		32.5			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		12.6	0.6		18.9	8.8	16.2		32.5			
LOS		B	A		B	A	B		C			
Approach Delay		9.1			14.9							
Approach LOS		A			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 71.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 58.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso

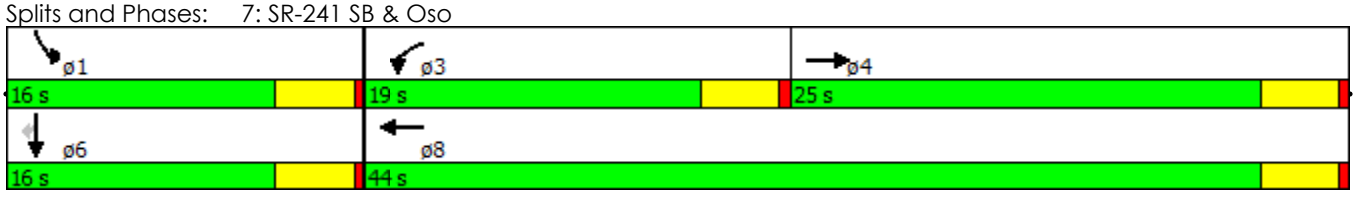


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	670	300	110	1620	0	0	0	0	50	0	80
Future Volume (vph)	0	670	300	110	1620	0	0	0	0	50	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			316									91
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	705	316	116	1705	0	0	0	0	53	0	84
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		19.0	44.0					16.0	16.0	16.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		17.2	47.8	8.5	27.4					8.0		12.3
Actuated g/C Ratio		0.36	1.00	0.18	0.57					0.17		0.26
v/c Ratio		0.39	0.20	0.37	0.59					0.09		0.18
Control Delay		13.0	0.3	22.2	7.1					18.2		6.0
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		13.0	0.3	22.2	7.1					18.2		6.0
LOS		B	A	C	A					B		A
Approach Delay		9.1			8.1							
Approach LOS		A			A							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 47.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 8.6 Intersection LOS: A
Intersection Capacity Utilization 53.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: SR-241 SB & Oso

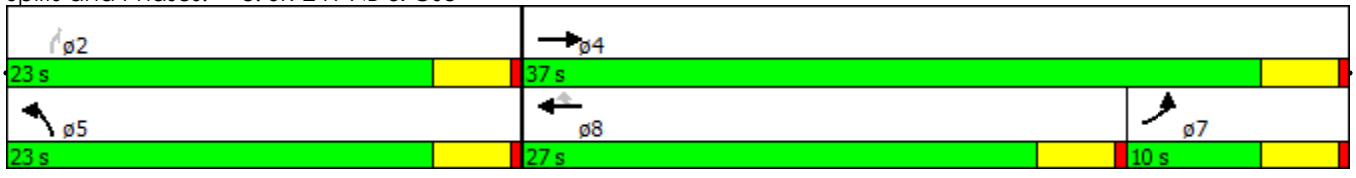


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	570	0	0	1300	240	480	0	40	0	0	0
Future Volume (vph)	160	570	0	0	1300	240	480	0	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						253			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	600	0	0	1368	253	505	0	42	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	10.0	37.0			27.0	27.0	23.0		23.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.1	29.3			21.7	21.7	19.3		19.3			
Actuated g/C Ratio	0.11	0.52			0.38	0.38	0.34		0.34			
v/c Ratio	0.46	0.33			0.70	0.34	0.43		0.07			
Control Delay	29.9	8.2			17.5	3.5	17.1		1.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	29.9	8.2			17.5	3.5	17.1		1.1			
LOS	C	A			B	A	B		A			
Approach Delay		12.9			15.3							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 56.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 53.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

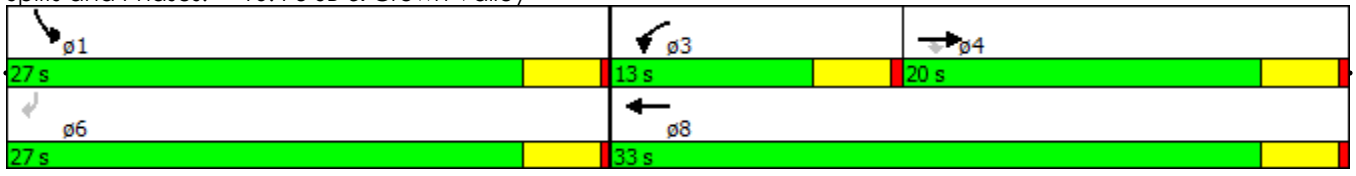


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1660	240	370	1230	0	0	0	0	1270	0	760
Future Volume (vph)	0	1660	240	370	1230	0	0	0	0	1270	0	760
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1747	253	389	1295	0	0	0	0	1337	0	800
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.87	0.43	0.76	0.53					0.70		0.71
Control Delay		27.1	5.4	35.9	11.7					18.0		18.0
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		27.1	5.4	35.9	11.7					18.0		18.0
LOS		C	A	D	B					B		B
Approach Delay		24.4			17.3							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.0 Intersection LOS: B
Intersection Capacity Utilization 64.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley

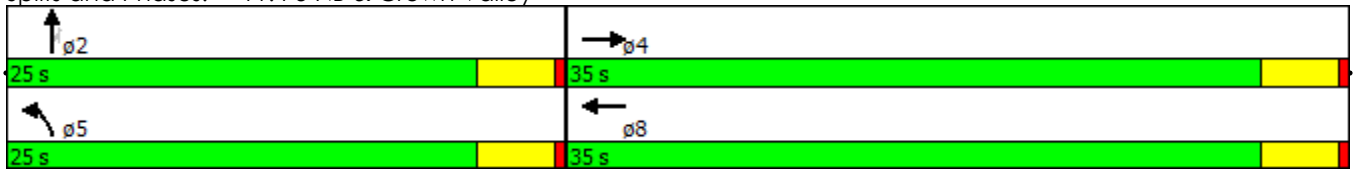


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2100	760	0	1340	1310	330	0	550	0	0	0
Future Volume (vph)	0	2100	760	0	1340	1310	330	0	550	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5917	1283	0	4570	1362	1681	1461	1504	0	0	0
Flt Permitted							0.950	0.994				
Satd. Flow (perm)	0	5917	1260	0	4570	1362	1681	1461	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66	536		304	689		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			33%			50%	10%		47%			
Lane Group Flow (vph)	0	2475	536	0	2101	689	312	307	307	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		35.0			35.0		25.0	25.0	25.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		31.0	60.0		31.0	60.0	21.0	21.0	21.0			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.35	0.35	0.35			
v/c Ratio		0.80	0.43		0.84	0.51	0.53	0.59	0.57			
Control Delay		14.1	1.1		14.4	1.3	19.6	20.5	19.9			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		14.1	1.1		14.4	1.3	19.6	20.5	19.9			
LOS		B	A		B	A	B	C	B			
Approach Delay		11.8			11.2			20.0				
Approach LOS		B			B			B				

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: I-5 NB & Crown Valley



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	520	490	40	450	600
Future Volume (vph)	130	520	490	40	450	600
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		547		42		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	547	516	42	474	632
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	9.9	9.8	16.1	25.9	16.1	36.1
Actuated g/C Ratio	0.18	0.18	0.30	0.48	0.30	0.67
v/c Ratio	0.42	0.76	0.93	0.05	0.90	0.51
Control Delay	23.3	10.1	47.9	2.2	44.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	10.1	47.9	2.2	44.0	7.0
LOS	C	B	D	A	D	A
Approach Delay	12.7		44.5			22.9
Approach LOS	B		D			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 53.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1250	620
Future Volume (vph)	540	10	80	10	10	10	260	1170	10	10	1250	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	1551	0	1770	1723	0	1770	5579	0	1770	3725	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			11			2				463
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	95	0	11	22	0	274	1243	0	11	1316	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	20.0	21.0		9.0	10.0		20.0	51.0		9.0	40.0	40.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	15.8	16.7		6.2	5.8		16.1	54.6		5.0	36.1	36.1
Actuated g/C Ratio	0.19	0.20		0.07	0.07		0.19	0.65		0.06	0.43	0.43
v/c Ratio	0.85	0.25		0.08	0.17		0.81	0.34		0.10	0.82	0.71
Control Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	27.2	11.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	48.2	1.5
Total Delay	47.5	11.5		38.2	30.3		53.7	7.9		42.0	75.4	12.5
LOS	D	B		D	C		D	A		D	E	B
Approach Delay		42.4			32.9			16.2			54.5	
Approach LOS		D			C			B			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 83.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.6 Intersection LOS: D
Intersection Capacity Utilization 81.0% ICU Level of Service D
Analysis Period (min) 15

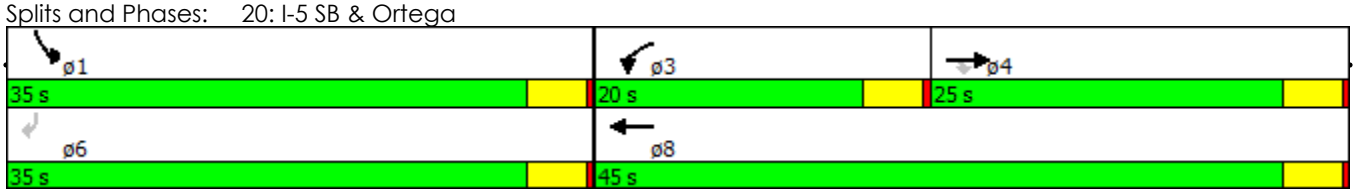
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1240	460	530	870	0	0	0	0	960	0	1010
Future Volume (vph)	0	1240	460	530	870	0	0	0	0	960	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1518	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			421									204
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1305	484	558	916	0	0	0	0	1011	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		25.0	25.0	20.0	45.0					35.0		35.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		21.0	21.0	15.5	40.5					31.0		31.0
Actuated g/C Ratio		0.26	0.26	0.19	0.51					0.39		0.39
v/c Ratio		0.88	0.68	0.82	0.48					0.74		0.78
Control Delay		36.9	10.2	42.0	13.7					24.9		21.9
Queue Delay		2.5	0.0	0.0	0.5					0.0		0.0
Total Delay		39.4	10.2	42.0	14.2					24.9		21.9
LOS		D	B	D	B					C		C
Approach Delay		31.5			24.7							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 26.5 Intersection LOS: C
Intersection Capacity Utilization 84.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

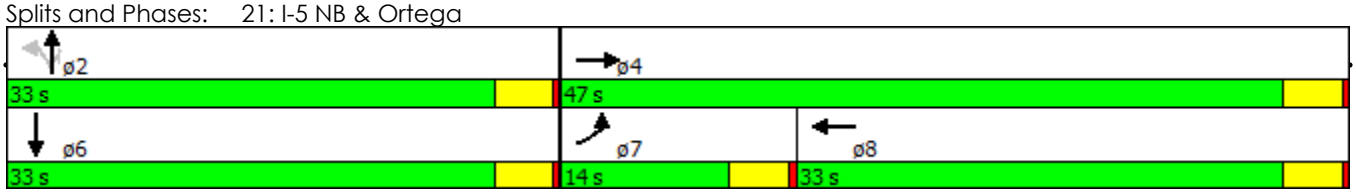


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1430	780	0	1940	10	280	10	750	0	0	10
Future Volume (vph)	10	1430	780	0	1940	10	280	10	750	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5367	1362	0	5529	0	0	1691	1583	0	1611	0
Flt Permitted	0.950							0.831				
Satd. Flow (perm)	1770	5367	1337	0	5529	0	0	1441	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95	525		1			22	68		280	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			36%						33%			
Lane Group Flow (vph)	11	1801	525	0	2053	0	0	566	529	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	14.0	47.0			33.0		33.0	33.0	33.0		33.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	6.1	37.1	74.3		35.0			29.2	29.2		29.2	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.39	0.39		0.39	
v/c Ratio	0.08	0.66	0.39		0.79			0.98	0.80		0.01	
Control Delay	34.7	14.2	0.9		20.2			58.0	29.8		0.0	
Queue Delay	0.0	21.6	0.0		0.0			0.0	0.0		0.0	
Total Delay	34.7	35.8	0.9		20.2			58.0	29.8		0.0	
LOS	C	D	A		C			E	C		A	
Approach Delay		28.0			20.2			44.4			0.0	
Approach LOS		C			C			D			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 28.3 Intersection LOS: C
Intersection Capacity Utilization 82.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

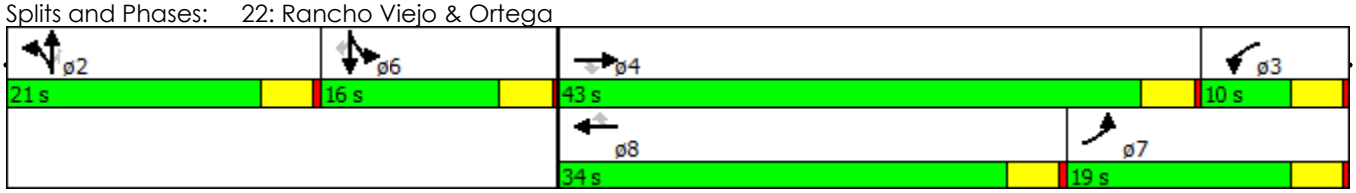


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1250	470	80	1750	440	280	160	40	220	190	120
Future Volume (vph)	270	1250	470	80	1750	440	280	160	40	220	190	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1853	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1853	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			435			460			158			158
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	284	1316	495	84	1842	463	295	168	42	209	223	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	19.0	43.0	43.0	10.0	34.0	34.0	21.0	21.0	21.0	16.0	16.0	16.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.0	41.0	41.0	6.0	30.0	30.0	17.0	17.0	17.0	12.0	12.0	12.0
Actuated g/C Ratio	0.17	0.46	0.46	0.07	0.33	0.33	0.19	0.19	0.19	0.13	0.13	0.13
v/c Ratio	0.96	0.79	0.55	0.71	1.01	0.56	0.44	0.48	0.10	0.89	0.90	0.36
Control Delay	83.2	25.9	5.5	73.7	54.0	5.2	34.7	37.8	0.5	75.6	77.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.2	25.9	5.5	73.7	54.0	5.2	34.7	37.8	0.5	75.6	77.4	6.5
LOS	F	C	A	E	D	A	C	D	A	E	E	A
Approach Delay		28.9			45.2			32.9			60.7	
Approach LOS		C			D			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 39.5 Intersection LOS: D
Intersection Capacity Utilization 86.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

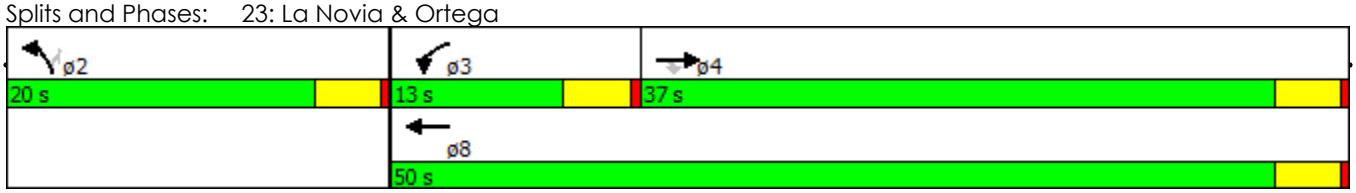


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1110	280	230	1990	340	200
Future Volume (vph)	1110	280	230	1990	340	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		271				211
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1168	295	242	2095	358	211
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	37.0	37.0	13.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	32.9	32.9	8.7	45.6	16.0	16.0
Actuated g/C Ratio	0.47	0.47	0.12	0.66	0.23	0.23
v/c Ratio	0.71	0.34	0.57	0.92	0.45	0.41
Control Delay	17.6	3.3	34.4	19.3	25.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	3.3	34.4	19.3	25.4	6.5
LOS	B	A	C	B	C	A
Approach Delay	14.7			20.8	18.4	
Approach LOS	B			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 75.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

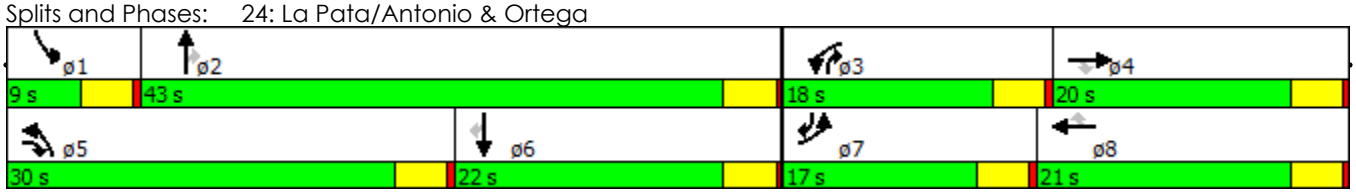


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	160	770	260	420	10	720	760	170	10	1030	840
Future Volume (vph)	420	160	770	260	420	10	720	760	170	10	1030	840
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1512	1770	3654	1512	3539	5588	1512	1770	5588	2929
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			158			179			109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	442	168	811	274	442	11	758	800	179	11	1084	884
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	20.0	30.0	18.0	21.0	21.0	30.0	43.0	18.0	9.0	22.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.0	14.0	40.1	14.0	15.0	15.0	26.0	46.3	60.3	5.0	18.0	31.0
Actuated g/C Ratio	0.15	0.16	0.46	0.16	0.17	0.17	0.30	0.53	0.68	0.06	0.20	0.35
v/c Ratio	0.85	0.29	1.09	0.98	0.71	0.03	0.73	0.27	0.16	0.11	0.95	0.78
Control Delay	53.4	33.8	84.8	87.3	41.3	0.1	32.9	12.6	1.3	42.9	52.7	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	33.8	84.8	87.3	41.3	0.1	32.9	12.6	1.3	42.9	52.7	26.0
LOS	D	C	F	F	D	A	C	B	A	D	D	C
Approach Delay		69.0			58.0			20.3			40.7	
Approach LOS		E			E			C			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 88.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 43.7		Intersection LOS: D	
Intersection Capacity Utilization 93.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 24: La Pata/Antonio & Ortega

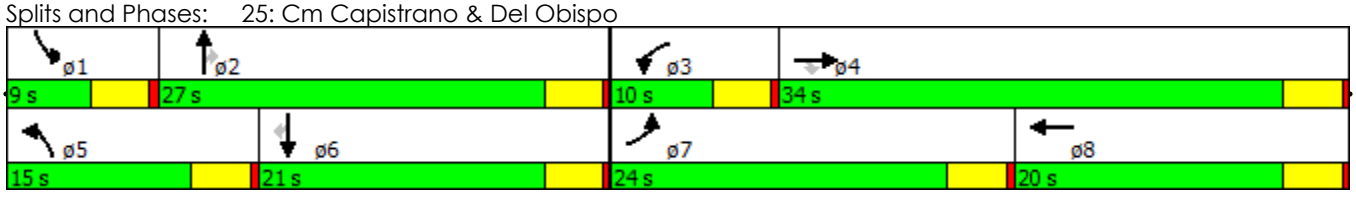


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Future Volume (vph)	390	520	410	130	480	20	450	420	120	30	270	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3508	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3508	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			346		5				177			453
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	547	432	137	526	0	474	442	126	32	284	453
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	24.0	34.0	34.0	10.0	20.0		15.0	27.0	27.0	9.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.7	28.7	28.7	6.0	15.0		11.0	28.5	28.5	5.0	17.0	17.0
Actuated g/C Ratio	0.25	0.36	0.36	0.08	0.19		0.14	0.36	0.36	0.06	0.22	0.22
v/c Ratio	0.93	0.42	0.56	0.52	0.78		0.99	0.66	0.19	0.29	0.71	0.66
Control Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	19.9	7.5	43.2	39.2		74.9	29.2	2.2	42.6	40.2	8.3
LOS	E	B	A	D	D		E	C	A	D	D	A
Approach Delay		27.8			40.0			46.7			21.5	
Approach LOS		C			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 78.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 33.8		Intersection LOS: C	
Intersection Capacity Utilization 76.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

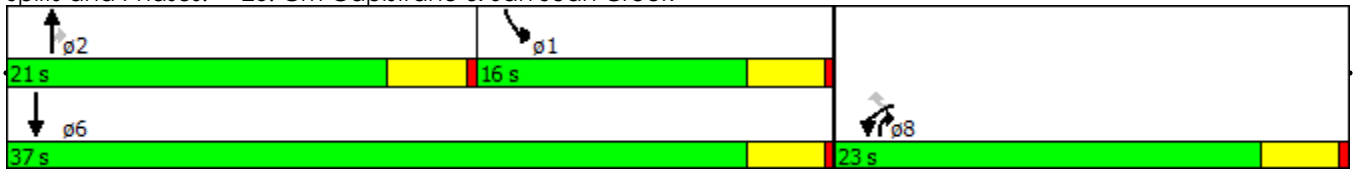


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	710	540	510	640	520	550
Future Volume (vph)	710	540	510	640	520	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45	350		20		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	906	409	537	674	547	579
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	21.0	23.0	16.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.6	18.6	17.0	35.6	12.0	33.0
Actuated g/C Ratio	0.31	0.31	0.29	0.60	0.20	0.55
v/c Ratio	0.84	0.61	0.53	0.72	0.79	0.30
Control Delay	27.4	7.9	20.4	11.4	33.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	7.9	20.4	11.4	33.1	7.7
LOS	C	A	C	B	C	A
Approach Delay	21.3		15.4			20.1
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	640	350	800	50	560	700
Future Volume (vph)	640	350	800	50	560	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		368		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	674	368	842	53	589	737
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	19.0		24.0		17.0	41.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	14.5	59.5	20.4	59.5	12.7	37.0
Actuated g/C Ratio	0.24	1.00	0.34	1.00	0.21	0.62
v/c Ratio	0.81	0.23	0.70	0.03	0.81	0.33
Control Delay	30.4	0.3	20.8	0.0	32.9	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	0.3	20.8	0.0	32.9	6.0
LOS	C	A	C	A	C	A
Approach Delay	19.8		19.6			17.9
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	630	240	860	390	340
Future Volume (vph)	520	630	240	860	390	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3500	1770	1583
Flt Permitted				0.649	0.950	
Satd. Flow (perm)	1863	1493	0	2297	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		663				284
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	547	663	0	1158	411	358
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	38.0	38.0	38.0	38.0	22.0	22.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	32.2	32.2		32.2	18.1	18.1
Actuated g/C Ratio	0.55	0.55		0.55	0.31	0.31
v/c Ratio	0.53	0.59		0.91	0.75	0.52
Control Delay	10.5	3.1		24.9	29.8	7.6
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	10.5	3.1		24.9	29.8	7.6
LOS	B	A		C	C	A
Approach Delay	6.4			24.9	19.4	
Approach LOS	A			C	B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 89.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Future Volume (vph)	370	60	80	20	300	150	100	200	20	50	300	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1786	1583	0	1857	1583	1770	1827	0	0	1850	1583
Flt Permitted		0.959			0.997		0.342				0.925	
Satd. Flow (perm)	0	1786	1583	0	1857	1583	637	1827	0	0	1723	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			158		9				537
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	452	84	0	337	158	105	232	0	0	369	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	21.0	21.0	21.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	22.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		16.6	16.6		12.6	12.6	18.0	18.0			18.0	18.0
Actuated g/C Ratio		0.28	0.28		0.21	0.21	0.30	0.30			0.30	0.30
v/c Ratio		0.91	0.17		0.85	0.34	0.54	0.41			0.71	0.63
Control Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		46.3	5.0		45.3	6.5	30.9	18.8			27.8	5.7
LOS		D	A		D	A	C	B			C	A
Approach Delay		39.8			32.9			22.6			14.7	
Approach LOS		D			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15

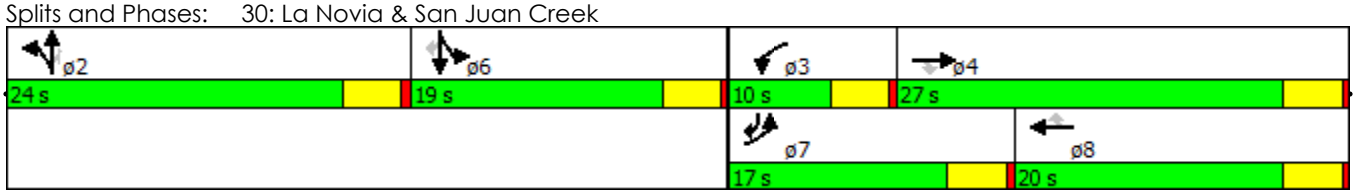
Splits and Phases: 29: Valle & I-5 NB/La Novia

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Future Volume (vph)	150	120	90	50	210	270	130	250	40	170	160	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			284			177			305
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	126	95	53	221	284	137	263	42	179	168	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	17.0	27.0	27.0	10.0	20.0	20.0	24.0	24.0	24.0	19.0	19.0	17.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	11.0	22.5	22.5	5.9	13.2	13.2	20.1	20.1	20.1	15.1	15.1	30.0
Actuated g/C Ratio	0.15	0.30	0.30	0.08	0.18	0.18	0.27	0.27	0.27	0.20	0.20	0.40
v/c Ratio	0.61	0.23	0.17	0.38	0.68	0.58	0.29	0.53	0.08	0.51	0.45	0.37
Control Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	22.5	3.5	43.2	40.5	9.0	25.5	29.5	0.3	34.0	32.4	3.6
LOS	D	C	A	D	D	A	C	C	A	C	C	A
Approach Delay		25.7			24.7			25.5			19.4	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 75.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 23.4		Intersection LOS: C	
Intersection Capacity Utilization 56.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 30: La Novia & San Juan Creek

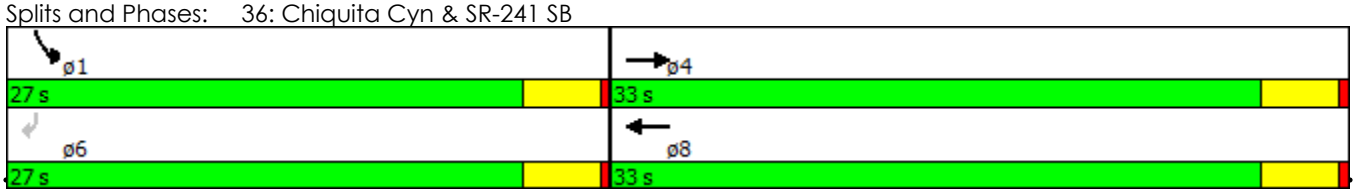


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	480	140	0	290	170
Future Volume (vph)	0	480	140	0	290	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						179
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	505	147	0	305	179
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		33.0	33.0		27.0	27.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		18.5	18.5		23.3	23.3
Actuated g/C Ratio		0.37	0.37		0.47	0.47
v/c Ratio		0.73	0.21		0.37	0.21
Control Delay		20.1	10.8		11.9	3.1
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		20.1	10.8		11.9	3.1
LOS		C	B		B	A
Approach Delay		20.1	10.8		8.6	
Approach LOS		C	B		A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 49.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 67.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	360	410	140	630	0	0
Future Volume (vph)	360	410	140	630	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				174		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	379	432	147	663	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	22.0	60.0	38.0	38.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	14.4	45.7	22.6	22.6		
Actuated g/C Ratio	0.32	1.00	0.49	0.49		
v/c Ratio	0.68	0.23	0.16	0.80		
Control Delay	23.6	0.3	6.7	15.6		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	23.6	0.3	6.7	15.6		
LOS	C	A	A	B		
Approach Delay		11.2	14.0			
Approach LOS		B	B			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 45.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 12.6 Intersection LOS: B
Intersection Capacity Utilization 67.6% ICU Level of Service C
Analysis Period (min) 15

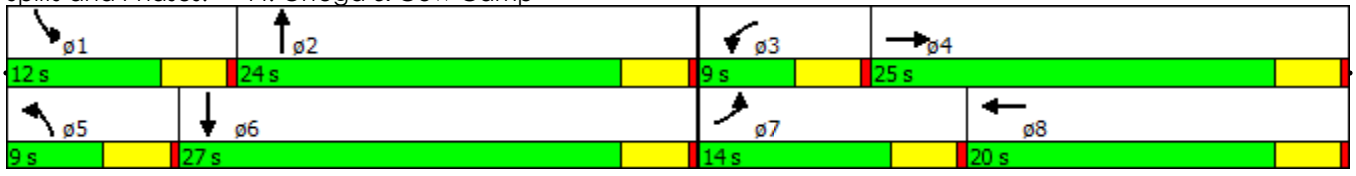
Splits and Phases: 37: Grandeza & SR-241 NB

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	490	830	10	40	270	20	10	80	210	90	610	630
Future Volume (vph)	490	830	10	40	270	20	10	80	210	90	610	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3716	0	1770	3679	0	1770	3229	0	1770	3376	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3716	0	1770	3679	0	1770	3229	0	1770	3376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			11			221			397	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	516	885	0	42	305	0	11	305	0	95	1305	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	14.0	25.0		9.0	20.0		9.0	24.0		12.0	27.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	10.1	21.8		5.1	12.6		5.1	21.0		7.4	28.4	
Actuated g/C Ratio	0.16	0.34		0.08	0.19		0.08	0.32		0.11	0.44	
v/c Ratio	0.94	0.71		0.30	0.42		0.08	0.26		0.47	0.77	
Control Delay	57.1	24.2		36.9	24.1		31.8	6.7		37.2	16.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	57.1	24.2		36.9	24.1		31.8	6.7		37.2	16.1	
LOS	E	C		D	C		C	A		D	B	
Approach Delay		36.4			25.6			7.6			17.5	
Approach LOS		D			C			A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 44: Ortega & Cow Camp

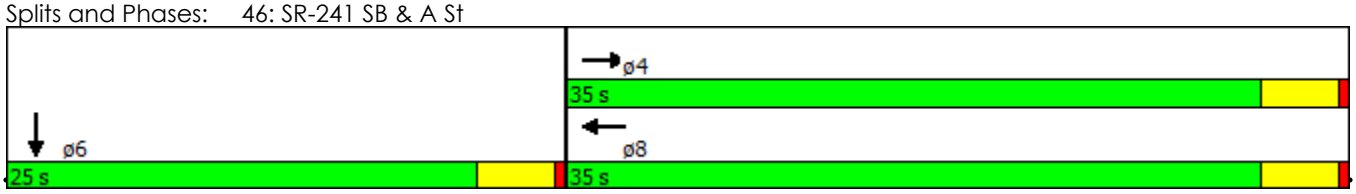


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	220	180	0	90	0	0	0	0	0	0	310
Future Volume (vph)	0	220	180	0	90	0	0	0	0	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1749	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1749	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101									782	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	421	0	0	95	0	0	0	0	0	326	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		13.3			13.3						21.2	
Actuated g/C Ratio		0.31			0.31						0.50	
v/c Ratio		0.68			0.16						0.27	
Control Delay		15.5			10.6						0.6	
Queue Delay		0.0			0.0						0.0	
Total Delay		15.5			10.6						0.6	
LOS		B			B						A	
Approach Delay		15.5			10.6						0.6	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 42.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 9.2 Intersection LOS: A
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 46: SR-241 SB & A St



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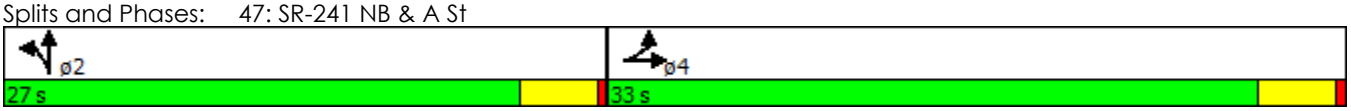
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	0	0	0	0	0	90	0	0	0	0	0
Future Volume (vph)	220	0	0	0	0	0	90	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	232	0	0	0	0	0	95	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	33.0	33.0					27.0	27.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	11.2						27.1					
Actuated g/C Ratio	0.24						0.59					
v/c Ratio	0.54						0.09					
Control Delay	19.3						5.5					
Queue Delay	0.0						0.0					
Total Delay	19.3						5.5					
LOS	B						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 46.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 15.3 Intersection LOS: B
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

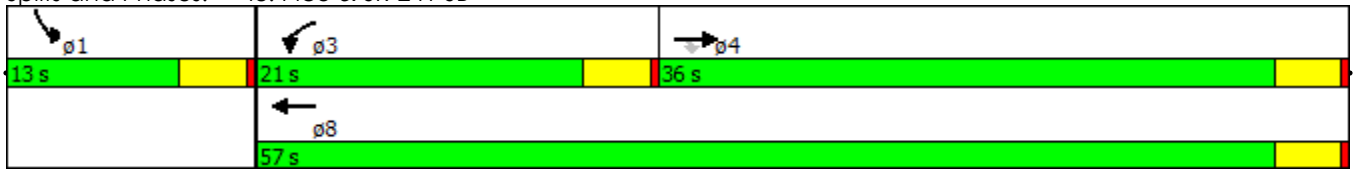


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	990	210	180	1310	0	0	0	0	50	0	560
Future Volume (vph)	0	990	210	180	1310	0	0	0	0	50	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221									252
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1042	221	189	1379	0	0	0	0	53	0	589
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		36.0	36.0	21.0	57.0					13.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		27.6	27.6	12.6	40.5					8.7		47.9
Actuated g/C Ratio		0.58	0.58	0.26	0.85					0.18		1.00
v/c Ratio		0.51	0.23	0.41	0.46					0.17		0.37
Control Delay		11.8	2.6	23.1	3.0					26.4		0.7
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		11.8	2.6	23.1	3.0					26.4		0.7
LOS		B	A	C	A					C		A
Approach Delay		10.2			5.5							
Approach LOS		B			A							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 47.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 50.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB

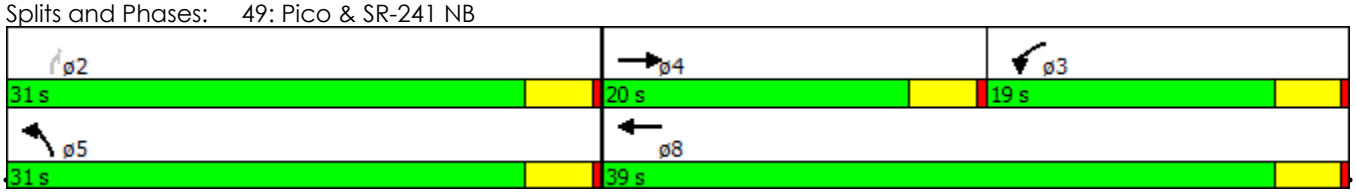


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	510	530	230	1050	0	440	0	110	0	0	0
Future Volume (vph)	0	510	530	230	1050	0	440	0	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			558						116			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	537	558	242	1105	0	463	0	116	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		20.0		19.0	39.0		31.0		31.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		14.2	66.3	12.9	31.1		27.1		27.1			
Actuated g/C Ratio		0.21	1.00	0.19	0.47		0.41		0.41			
v/c Ratio		0.71	0.36	0.70	0.67		0.64		0.16			
Control Delay		30.2	0.7	37.2	15.7		21.7		3.9			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		30.2	0.7	37.2	15.7		21.7		3.9			
LOS		C	A	D	B		C		A			
Approach Delay		15.2			19.5							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 61.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB



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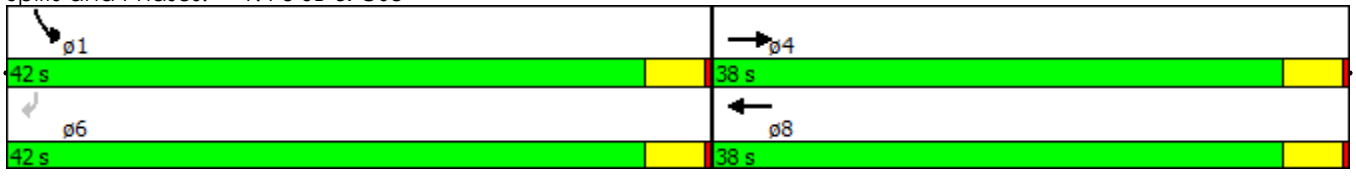
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰↰		↱↱
Traffic Volume (vph)	0	1730	600	0	1420	610	0	0	0	1230	0	420
Future Volume (vph)	0	1730	600	0	1420	610	0	0	0	1230	0	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		425	0		0	0		150
Storage Lanes	0		1	0		1	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	0	0	0	3433	0	2787
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1536	0	5085	1583	0	0	0	3433	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469			642						15
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		1538			940			810			726	
Travel Time (s)		21.0			12.8			22.1			11.0	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1821	632	0	1495	642	0	0	0	1295	0	442
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free				Prot		Perm
Protected Phases		4			8					1		
Permitted Phases			Free			Free						6
Total Split (s)		38.0			38.0					42.0		42.0
Total Lost Time (s)		4.0			4.0					4.0		4.0
Act Effct Green (s)		33.6	79.6		33.6	79.6				38.0		38.0
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.48		0.48
v/c Ratio		0.85	0.41		0.70	0.41				0.79		0.33
Control Delay		25.5	0.8		20.9	0.8				22.0		13.4
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay		25.5	0.8		20.9	0.8				22.0		13.4
LOS		C	A		C	A				C		B
Approach Delay		19.1			14.9							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 17.9		Intersection LOS: B	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: I-5 SB & Oso

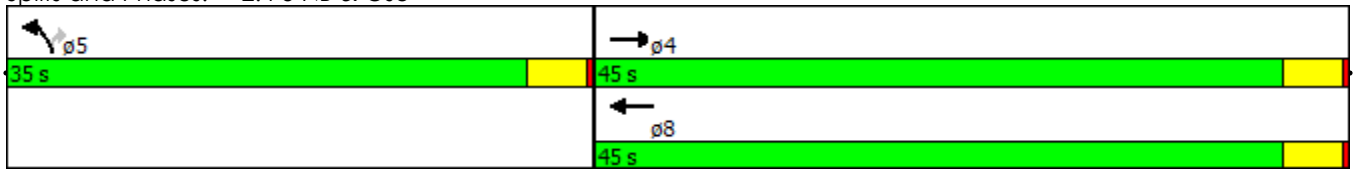


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰↰		↱			
Traffic Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Future Volume (vph)	0	2530	400	0	1480	650	540	0	650	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		220	0		350	0		150	0		0
Storage Lanes	0		1	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	5085	1536	0	5085	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190			684			14			
Link Speed (mph)		50			50			45			45	
Link Distance (ft)		940			480			550			505	
Travel Time (s)		12.8			6.5			8.3			7.7	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2663	421	0	1558	684	568	0	684	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot		Perm			
Protected Phases		4			8		5					
Permitted Phases			Free			Free			5			
Total Split (s)		45.0			45.0		35.0		35.0			
Total Lost Time (s)		4.0			4.0		4.0		4.0			
Act Effct Green (s)		41.0	80.0		41.0	80.0	31.0		31.0			
Actuated g/C Ratio		0.51	1.00		0.51	1.00	0.39		0.39			
v/c Ratio		1.02	0.27		0.60	0.43	0.43		1.10			
Control Delay		44.2	0.4		14.9	0.9	19.2		93.1			
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0			
Total Delay		44.2	0.4		14.9	0.9	19.2		93.1			
LOS		D	A		B	A	B		F			
Approach Delay		38.3			10.6							
Approach LOS		D			B							

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 32.9 Intersection LOS: C
Intersection Capacity Utilization 95.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB & Oso



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	780	630	100	1030	0	0	0	0	180	0	60
Future Volume (vph)	0	780	630	100	1030	0	0	0	0	180	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5085	1583	1770	5085	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			663									104
Link Speed (mph)		50			50			25			45	
Link Distance (ft)		853			755			986			1178	
Travel Time (s)		11.6			10.3			26.9			17.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	663	105	1084	0	0	0	0	189	0	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			Free									6
Total Split (s)		25.0		17.0	42.0					18.0	18.0	18.0
Total Lost Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Act Effct Green (s)		15.3	45.6	8.4	22.5					12.4		14.7
Actuated g/C Ratio		0.34	1.00	0.18	0.49					0.27		0.32
v/c Ratio		0.48	0.42	0.32	0.43					0.20		0.11
Control Delay		14.0	0.8	21.4	7.3					15.2		2.5
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		14.0	0.8	21.4	7.3					15.2		2.5
LOS		B	A	C	A					B		A
Approach Delay		8.1			8.5							
Approach LOS		A			A							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 46.3%		ICU Level of Service A	
Analysis Period (min) 15			

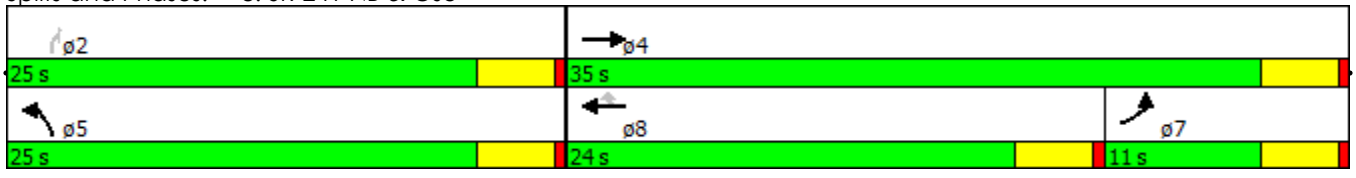
Splits and Phases: 7: SR-241 SB & Oso

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	940	0	0	650	70	480	0	100	0	0	0
Future Volume (vph)	50	940	0	0	650	70	480	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	0		0	0		300	0		0
Storage Lanes	1		0	0		1	2		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	3539	0	0	5085	1583	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5085	1529	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			91			
Link Speed (mph)		50			50			45			25	
Link Distance (ft)		755			986			1212			982	
Travel Time (s)		10.3			13.4			18.4			26.8	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	989	0	0	684	74	505	0	105	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA	Perm	Prot		Perm			
Protected Phases	7	4			8		5					
Permitted Phases						8			2			
Total Split (s)	11.0	35.0			24.0	24.0	25.0		25.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Act Effct Green (s)	6.2	21.2			17.4	17.4	21.3		21.3			
Actuated g/C Ratio	0.12	0.42			0.34	0.34	0.42		0.42			
v/c Ratio	0.13	0.67			0.39	0.13	0.35		0.15			
Control Delay	22.6	13.9			14.2	3.8	12.2		4.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	22.6	13.9			14.2	3.8	12.2		4.9			
LOS	C	B			B	A	B		A			
Approach Delay		14.3			13.2							
Approach LOS		B			B							

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 46.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: SR-241 NB & Oso

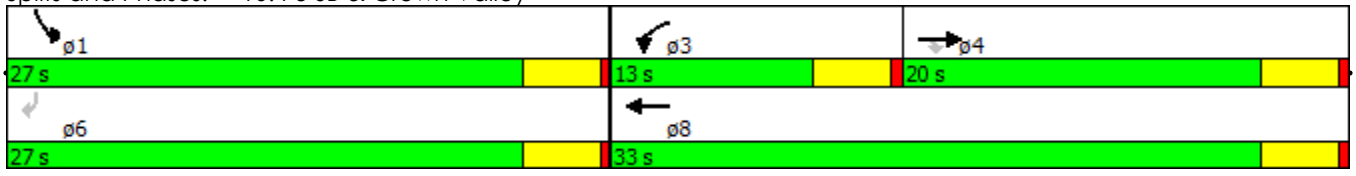


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1810	330	490	1380	0	0	0	0	1510	0	1060
Future Volume (vph)	0	1810	330	490	1380	0	0	0	0	1510	0	1060
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		575	190		0	0		0	320		575
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	7544	1583	3433	5085	0	0	0	0	4990	0	2787
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	7544	1529	3433	5085	0	0	0	0	4990	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			347									91
Link Speed (mph)		40			40			25			45	
Link Distance (ft)		664			528			667			820	
Travel Time (s)		11.3			9.0			18.2			12.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1905	347	516	1453	0	0	0	0	1589	0	1116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			36	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		20.0	20.0	13.0	33.0					27.0		27.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		16.0	16.0	9.0	29.0					23.0		23.0
Actuated g/C Ratio		0.27	0.27	0.15	0.48					0.38		0.38
v/c Ratio		0.95	0.52	1.00	0.59					0.83		0.99
Control Delay		34.0	5.7	70.0	12.5					21.7		44.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.0	5.7	70.0	12.5					21.7		44.9
LOS		C	A	E	B					C		D
Approach Delay		29.6			27.5							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 29.7 Intersection LOS: C
Intersection Capacity Utilization 73.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: I-5 SB & Crown Valley



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2640	580	0	1660	1560	240	0	450	0	0	0
Future Volume (vph)	0	2640	580	0	1660	1560	240	0	450	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	6013	1283	0	4575	1362	1681	1459	1504	0	0	0
Flt Permitted							0.950	0.995				
Satd. Flow (perm)	0	6013	1260	0	4575	1362	1681	1459	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11	445		339	821		18	18			
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		528			709			446			688	
Travel Time (s)		9.0			12.1			6.8			10.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)			10%			50%	10%		48%			
Lane Group Flow (vph)	0	2840	550	0	2568	821	228	253	246	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free		NA	Free	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases			Free			Free			2			
Total Split (s)		39.0			39.0		21.0	21.0	21.0			
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0			
Act Effct Green (s)		35.0	60.0		35.0	60.0	17.0	17.0	17.0			
Actuated g/C Ratio		0.58	1.00		0.58	1.00	0.28	0.28	0.28			
v/c Ratio		0.81	0.44		0.91	0.60	0.48	0.59	0.56			
Control Delay		12.2	1.1		16.5	2.0	21.9	23.9	22.7			
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total Delay		12.2	1.1		16.5	2.0	21.9	23.9	22.7			
LOS		B	A		B	A	C	C	C			
Approach Delay		10.4			13.0			22.9				
Approach LOS		B			B			C				

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 66.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: I-5 NB & Crown Valley

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	490	480	90	370	560
Future Volume (vph)	160	490	480	90	370	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		80	200	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1493	1863	1529	1770	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		516		95		
Link Speed (mph)	25		25			25
Link Distance (ft)	883		491			452
Travel Time (s)	24.1		13.4			12.3
Confl. Peds. (#/hr)	20	20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	516	505	95	389	589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	22.0	20.0	18.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.6	10.3	18.1	28.6	14.1	36.1
Actuated g/C Ratio	0.19	0.19	0.33	0.52	0.26	0.66
v/c Ratio	0.49	0.74	0.82	0.11	0.85	0.48
Control Delay	24.5	9.4	31.8	1.6	42.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	9.4	31.8	1.6	42.0	6.9
LOS	C	A	C	A	D	A
Approach Delay	13.1		27.0			20.8
Approach LOS	B		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 18: Cm Capistrano & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	640	10	150	10	10	10	160	1200	10	10	960	820
Future Volume (vph)	640	10	150	10	10	10	160	1200	10	10	960	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	150		0	150		150
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1518	0	1770	1723	0	1770	5076	0	1770	3539	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		158			11			2				610
Link Speed (mph)		25			45			35			35	
Link Distance (ft)		883			176			795			348	
Travel Time (s)		24.1			2.7			15.5			6.8	
Confl. Peds. (#/hr)			20						20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	674	169	0	11	22	0	168	1274	0	11	1011	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Total Split (s)	32.0	34.0		9.0	11.0		20.0	68.0		9.0	57.0	57.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	25.4	26.9		8.0	6.2		16.1	71.7		5.0	53.3	53.3
Actuated g/C Ratio	0.22	0.24		0.07	0.05		0.14	0.63		0.04	0.47	0.47
v/c Ratio	0.87	0.35		0.09	0.21		0.67	0.40		0.14	0.61	0.84
Control Delay	55.8	10.2		49.8	40.2		61.6	11.9		59.4	25.1	16.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	18.4	8.0
Total Delay	55.8	10.2		49.8	40.2		61.6	11.9		59.4	43.6	24.8
LOS	E	B		D	D		E	B		E	D	C
Approach Delay		46.7			43.4			17.7			35.1	
Approach LOS		D			D			B			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 113			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

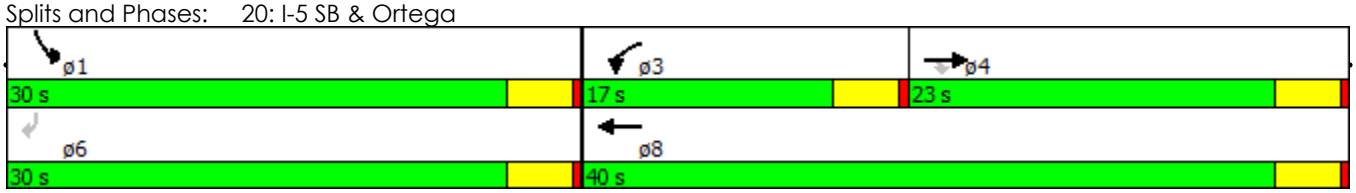
Splits and Phases: 19: Del Obispo & Ortega

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1380	450	580	780	0	0	0	0	1230	0	1010
Future Volume (vph)	0	1380	450	580	780	0	0	0	0	1230	0	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	250		0	0		0	0		0
Storage Lanes	0		1	2		0	0		0	2		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	5588	1583	3505	3725	0	0	0	0	3505	0	3167
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5588	1524	3505	3725	0	0	0	0	3505	0	3167
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			429									266
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		348			407			806			782	
Travel Time (s)		5.9			6.9			12.2			11.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	3%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1453	474	611	821	0	0	0	0	1295	0	1063
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		4		3	8					1		
Permitted Phases			4									6
Total Split (s)		23.0	23.0	17.0	40.0					30.0		30.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Act Effct Green (s)		19.0	19.0	13.0	36.0					26.0		26.0
Actuated g/C Ratio		0.27	0.27	0.19	0.51					0.37		0.37
v/c Ratio		0.96	0.65	0.94	0.43					1.00		0.79
Control Delay		41.7	8.5	53.7	11.5					47.8		19.7
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		41.7	8.5	53.7	11.5					47.8		19.7
LOS		D	A	D	B					D		B
Approach Delay		33.5			29.5							
Approach LOS		C			C							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 33.2 Intersection LOS: C
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: I-5 SB & Ortega

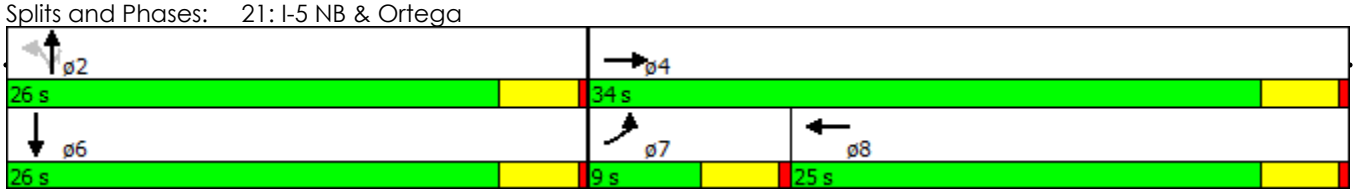


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1870	750	0	1900	10	220	10	650	0	0	10
Future Volume (vph)	10	1870	750	0	1900	10	220	10	650	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	5457	1583	0	5529	0	0	1685	1583	0	1611	0
Flt Permitted	0.950							0.840				
Satd. Flow (perm)	1770	5457	1555	0	5529	0	0	1450	1583	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39	615		2			4	91		210	
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		184			778			521			254	
Travel Time (s)		3.1			13.3			7.9			3.8	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)			22%						34%			
Lane Group Flow (vph)	11	2142	615	0	2011	0	0	476	451	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Free		NA		Perm	NA	Perm		NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			Free				2		2			
Total Split (s)	9.0	34.0			25.0		26.0	26.0	26.0		26.0	
Total Lost Time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Act Effct Green (s)	5.0	30.0	60.0		28.2			22.0	22.0		22.0	
Actuated g/C Ratio	0.08	0.50	1.00		0.47			0.37	0.37		0.37	
v/c Ratio	0.07	0.78	0.40		0.77			0.89	0.71		0.02	
Control Delay	26.7	14.6	0.8		17.9			40.7	20.3		0.0	
Queue Delay	0.0	47.8	0.0		0.0			0.0	0.0		0.0	
Total Delay	26.7	62.4	0.8		17.9			40.7	20.3		0.0	
LOS	C	E	A		B			D	C		A	
Approach Delay		48.5			17.9			30.8			0.0	
Approach LOS		D			B			C			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.8 Intersection LOS: C
Intersection Capacity Utilization 81.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: I-5 NB & Ortega

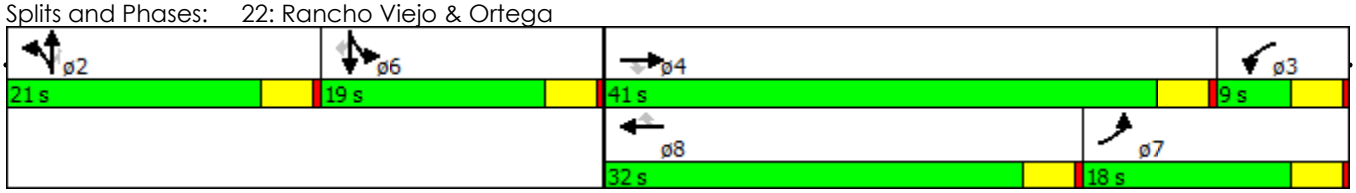


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1410	380	70	1230	250	460	130	50	380	150	160
Future Volume (vph)	200	1410	380	70	1230	250	460	130	50	380	150	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	150		450	150		0	180		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3654	1583	1770	5481	1583	3539	1863	1583	1770	1822	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.978	
Satd. Flow (perm)	1770	3654	1464	1770	5481	1583	3539	1863	1512	1770	1822	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			300			263			158			168
Link Speed (mph)		35			40			30			45	
Link Distance (ft)		778			940			635			619	
Travel Time (s)		15.2			16.0			14.4			9.4	
Confl. Peds. (#/hr)			20						20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)										31%		
Lane Group Flow (vph)	211	1484	400	74	1295	263	484	137	53	276	282	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Total Split (s)	18.0	41.0	41.0	9.0	32.0	32.0	21.0	21.0	21.0	19.0	19.0	19.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.2	37.2	37.2	5.0	27.0	27.0	17.0	17.0	17.0	15.0	15.0	15.0
Actuated g/C Ratio	0.15	0.42	0.42	0.06	0.31	0.31	0.19	0.19	0.19	0.17	0.17	0.17
v/c Ratio	0.80	0.97	0.51	0.74	0.77	0.39	0.71	0.38	0.13	0.92	0.91	0.41
Control Delay	59.5	42.6	7.6	83.1	31.7	5.0	40.3	35.4	0.6	73.1	71.5	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	42.6	7.6	83.1	31.7	5.0	40.3	35.4	0.6	73.1	71.5	9.0
LOS	E	D	A	F	C	A	D	D	A	E	E	A
Approach Delay		37.6			29.7			36.2			57.6	
Approach LOS		D			C			D			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 37.7 Intersection LOS: D
Intersection Capacity Utilization 84.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Rancho Viejo & Ortega

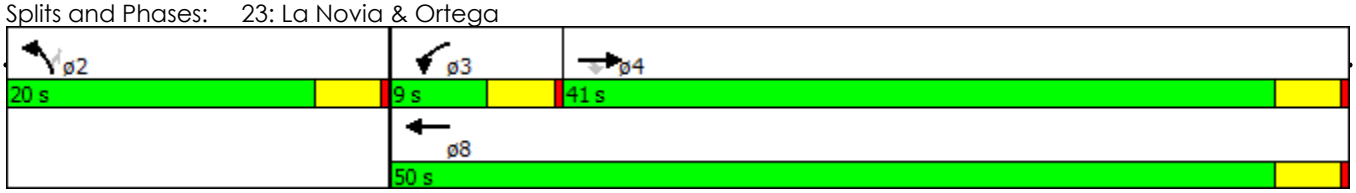


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1690	290	200	1340	250	160
Future Volume (vph)	1690	290	200	1340	250	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	80		175	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1583	3433	3471	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3471	1524	3433	3471	3433	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		206				138
Link Speed (mph)	40			40	35	
Link Distance (ft)	328			641	511	
Travel Time (s)	5.6			10.9	10.0	
Confl. Peds. (#/hr)		20				20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1779	305	211	1411	263	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	41.0	41.0	9.0	50.0	20.0	20.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	37.0	37.0	5.0	46.0	16.0	16.0
Actuated g/C Ratio	0.53	0.53	0.07	0.66	0.23	0.23
v/c Ratio	0.97	0.34	0.86	0.62	0.34	0.37
Control Delay	32.6	4.3	65.9	8.4	24.0	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	4.3	65.9	8.4	24.0	9.3
LOS	C	A	E	A	C	A
Approach Delay	28.5			15.9	18.3	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 22.5 Intersection LOS: C
Intersection Capacity Utilization 75.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: La Novia & Ortega

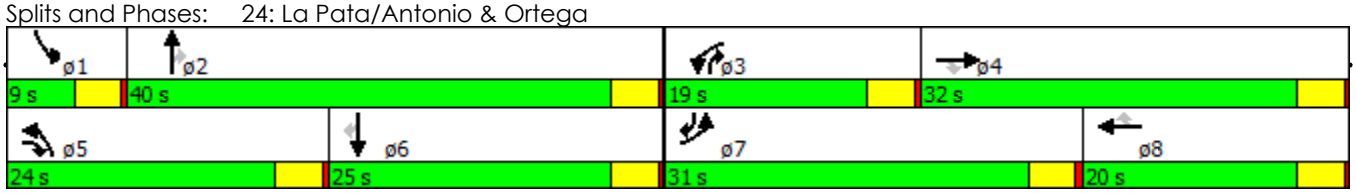


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	700	620	390	140	220	10	480	670	260	10	740	690
Future Volume (vph)	700	620	390	140	220	10	480	670	260	10	740	690
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		350	310		270	240		400	340		350
Storage Lanes	2		1	1		1	2		1	1		2
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3654	1583	1770	3654	1583	3539	5588	1583	1770	5588	3167
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3654	1506	1770	3654	1506	3539	5588	1506	1770	5588	2909
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92			185			98			142
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		868			1050			761			736	
Travel Time (s)		13.2			15.9			11.5			11.2	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	737	653	411	147	232	11	505	705	274	11	779	726
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	31.0	32.0	24.0	19.0	20.0	20.0	24.0	40.0	19.0	9.0	25.0	31.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	24.0	23.3	40.9	12.2	11.4	11.4	17.6	41.2	53.4	5.1	21.2	45.3
Actuated g/C Ratio	0.27	0.26	0.45	0.13	0.13	0.13	0.19	0.46	0.59	0.06	0.23	0.50
v/c Ratio	0.78	0.69	0.55	0.62	0.50	0.03	0.74	0.28	0.29	0.11	0.59	0.46
Control Delay	38.1	35.3	14.9	50.2	41.7	0.2	42.1	17.0	6.4	47.2	34.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	35.3	14.9	50.2	41.7	0.2	42.1	17.0	6.4	47.2	34.4	11.3
LOS	D	D	B	D	D	A	D	B	A	D	C	B
Approach Delay		31.8			43.8			23.6			23.4	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 90.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 27.9 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: La Pata/Antonio & Ortega

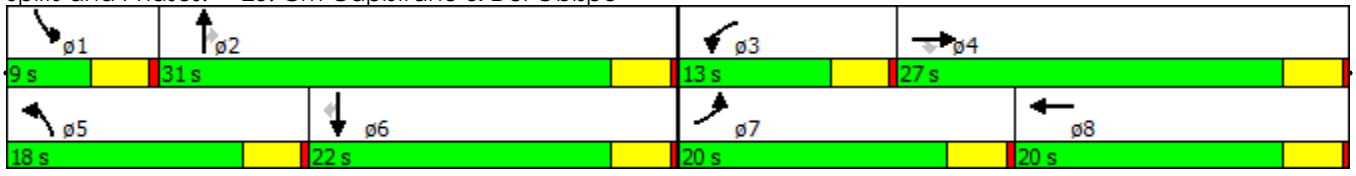


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Future Volume (vph)	340	480	430	280	600	60	560	460	210	60	300	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	260		200	90		0	220		140	100		100
Storage Lanes	1		1	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	3433	3468	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1518	3433	3468	0	3433	1863	1518	1770	1863	1518
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			365		12				205			348
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		555			353			800			555	
Travel Time (s)		10.8			6.9			21.8			15.1	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	358	505	453	295	695	0	589	484	221	63	316	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Total Split (s)	20.0	27.0	27.0	13.0	20.0		18.0	31.0	31.0	9.0	22.0	22.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	16.0	23.0	23.0	9.0	16.0		14.0	28.8	28.8	5.0	18.0	18.0
Actuated g/C Ratio	0.20	0.29	0.29	0.11	0.20		0.18	0.36	0.36	0.06	0.22	0.22
v/c Ratio	1.01	0.50	0.65	0.76	0.99		0.98	0.72	0.33	0.57	0.75	0.62
Control Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.5	25.7	10.5	49.0	64.6		67.5	30.7	5.2	58.3	42.2	9.5
LOS	F	C	B	D	E		E	C	A	E	D	A
Approach Delay		36.8			60.0			43.1			27.2	
Approach LOS		D			E			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 42.2		Intersection LOS: D	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 25: Cm Capistrano & Del Obispo

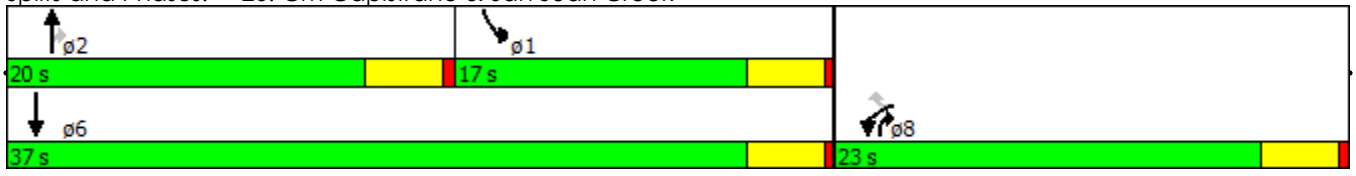


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	810	620	510	550	590	660
Future Volume (vph)	810	620	510	550	590	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50		0	200	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3345	1441	3539	1583	3433	3539
Flt Permitted	0.960				0.950	
Satd. Flow (perm)	3345	1392	3539	1529	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46	353		17		
Link Speed (mph)	45		45			35
Link Distance (ft)	461		559			861
Travel Time (s)	7.0		8.5			16.8
Confl. Peds. (#/hr)		20		20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)		28%				
Lane Group Flow (vph)	1036	470	537	579	621	695
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	8		2	8	1	6
Permitted Phases		8		2		
Total Split (s)	23.0	23.0	20.0	23.0	17.0	37.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	19.0	19.0	16.0	35.0	13.0	33.0
Actuated g/C Ratio	0.32	0.32	0.27	0.58	0.22	0.55
v/c Ratio	0.95	0.69	0.57	0.63	0.84	0.36
Control Delay	39.1	11.0	21.8	9.6	34.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	11.0	21.8	9.6	34.8	8.2
LOS	D	B	C	A	C	A
Approach Delay	30.4		15.5			20.8
Approach LOS	C		B			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 22.9 Intersection LOS: C
Intersection Capacity Utilization 70.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 26: Cm Capistrano & San Juan Creek

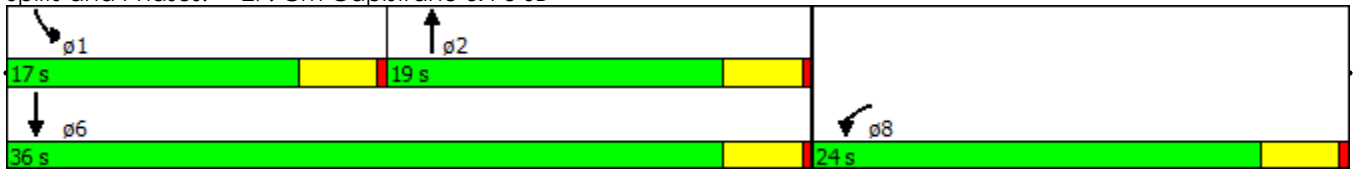


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	940	460	600	50	600	880
Future Volume (vph)	940	460	600	50	600	880
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	220		400	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25				25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		484		53		
Link Speed (mph)	45		45			45
Link Distance (ft)	208		805			559
Travel Time (s)	3.2		12.2			8.5
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	989	484	632	53	632	926
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Free	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Total Split (s)	24.0		19.0		17.0	36.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Act Effct Green (s)	19.4	59.4	15.2	59.4	12.8	32.0
Actuated g/C Ratio	0.33	1.00	0.26	1.00	0.22	0.54
v/c Ratio	0.88	0.31	0.70	0.03	0.85	0.49
Control Delay	30.5	0.5	25.1	0.0	36.0	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	0.5	25.1	0.0	36.0	9.8
LOS	C	A	C	A	D	A
Approach Delay	20.6		23.2			20.4
Approach LOS	C		C			C

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 59.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: Cm Capistrano & I-5 SB

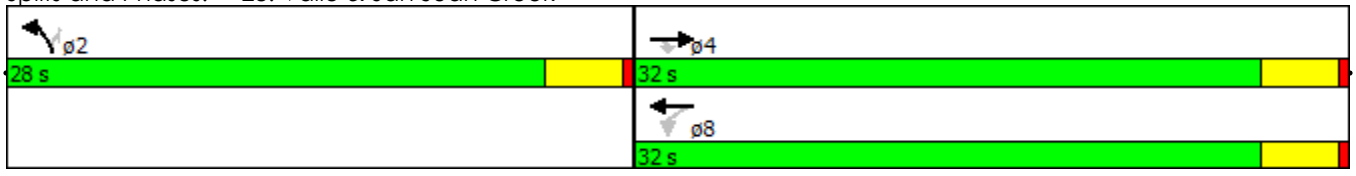


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	560	580	130	870	570	240
Future Volume (vph)	560	580	130	870	570	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	100
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1863	1583	0	3518	1770	1583
Flt Permitted				0.664	0.950	
Satd. Flow (perm)	1863	1493	0	2350	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		611				186
Link Speed (mph)	45			45	35	
Link Distance (ft)	461			696	1256	
Travel Time (s)	7.0			10.5	24.5	
Confl. Peds. (#/hr)		20				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	589	611	0	1053	600	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	32.0	32.0	32.0	32.0	28.0	28.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	28.0	28.0		28.0	24.0	24.0
Actuated g/C Ratio	0.47	0.47		0.47	0.40	0.40
v/c Ratio	0.68	0.60		0.96	0.85	0.34
Control Delay	17.4	3.8		37.3	30.5	5.4
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay	17.4	3.8		37.3	30.5	5.4
LOS	B	A		D	C	A
Approach Delay	10.5			37.3	23.1	
Approach LOS	B			D	C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 98.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 28: Valle & San Juan Creek

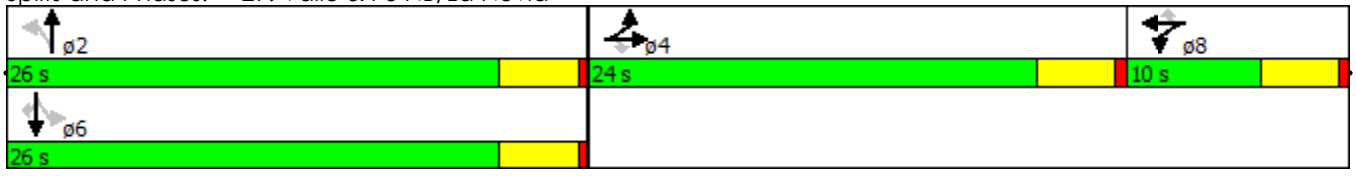


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Future Volume (vph)	380	90	70	20	90	110	180	310	40	130	200	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		215	100		0	0		100
Storage Lanes	0		1	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1790	1583	0	1846	1583	1770	1819	0	0	1827	1583
Flt Permitted		0.961			0.991		0.445				0.623	
Satd. Flow (perm)	0	1790	1583	0	1846	1583	829	1819	0	0	1160	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			116		12				400
Link Speed (mph)		45			40			35			35	
Link Distance (ft)		249			479			364			1256	
Travel Time (s)		3.8			8.2			7.1			24.5	
Confl. Peds. (#/hr)									20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	495	74	0	116	116	189	368	0	0	348	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4			8	2			6		6
Total Split (s)	24.0	24.0	24.0	10.0	10.0	10.0	26.0	26.0		26.0	26.0	26.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0
Act Effct Green (s)		18.4	18.4		6.1	6.1	22.4	22.4			22.4	22.4
Actuated g/C Ratio		0.33	0.33		0.11	0.11	0.40	0.40			0.40	0.40
v/c Ratio		0.85	0.13		0.58	0.42	0.58	0.51			0.76	0.46
Control Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		34.9	3.6		40.5	11.6	24.8	17.0			30.7	3.8
LOS		C	A		D	B	C	B			C	A
Approach Delay		30.8			26.0			19.7			16.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 29: Valle & I-5 NB/La Novia



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Future Volume (vph)	110	100	20	100	100	260	90	190	10	200	250	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		50	250		500	150		150	120		190
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1474	1770	1863	1474	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			274			123			274
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		707			573			555			465	
Travel Time (s)		13.8			8.7			9.5			9.1	
Confl. Peds. (#/hr)						20			20			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	105	21	105	105	274	95	200	11	211	263	274
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	pm+ov
Protected Phases	7	4		3	8		2	2		6	6	7
Permitted Phases			4			8			2			6
Total Split (s)	14.0	20.0	20.0	14.0	20.0	20.0	23.0	23.0	23.0	23.0	23.0	14.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	8.9	12.2	12.2	8.7	9.8	9.8	19.1	19.1	19.1	19.1	19.1	32.0
Actuated g/C Ratio	0.12	0.17	0.17	0.12	0.13	0.13	0.26	0.26	0.26	0.26	0.26	0.44
v/c Ratio	0.54	0.34	0.06	0.50	0.42	0.63	0.21	0.41	0.02	0.46	0.54	0.32
Control Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	31.8	0.3	39.5	34.2	11.2	24.0	26.5	0.1	27.5	29.1	3.2
LOS	D	C	A	D	C	B	C	C	A	C	C	A
Approach Delay		33.3			22.3			24.8			19.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 72.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

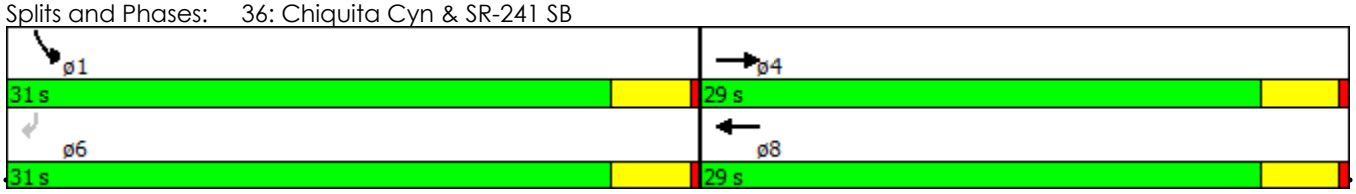
Splits and Phases: 30: La Novia & San Juan Creek

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	580	170	0	570	620
Future Volume (vph)	0	580	170	0	570	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	1863	0	1770	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						629
Link Speed (mph)		45	45		45	
Link Distance (ft)		1156	757		1091	
Travel Time (s)		17.5	11.5		16.5	
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	611	179	0	600	653
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type		NA	NA		Prot	Perm
Protected Phases		4	8		1	
Permitted Phases						6
Total Split (s)		29.0	29.0		31.0	31.0
Total Lost Time (s)		4.0	4.0		4.0	4.0
Act Effct Green (s)		22.0	22.0		27.1	27.1
Actuated g/C Ratio		0.38	0.38		0.47	0.47
v/c Ratio		0.85	0.25		0.72	0.60
Control Delay		29.4	12.7		19.3	4.1
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		29.4	12.7		19.3	4.1
LOS		C	B		B	A
Approach Delay		29.4	12.7		11.4	
Approach LOS		C	B		B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 16.9 Intersection LOS: B
Intersection Capacity Utilization 68.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 36: Chiquita Cyn & SR-241 SB



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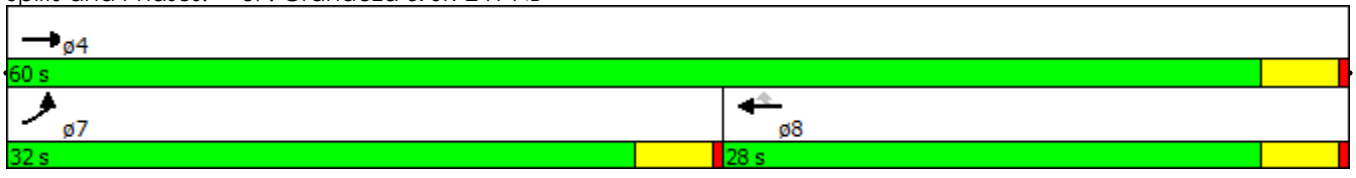
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	420	740	170	360	0	0
Future Volume (vph)	420	740	170	360	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			150	0	0
Storage Lanes	1			1	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	1863	1863	1583	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1493	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				285		
Link Speed (mph)		45	45		45	
Link Distance (ft)		757	1237		1169	
Travel Time (s)		11.5	18.7		17.7	
Confl. Peds. (#/hr)				20		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	442	779	179	379	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Turn Type	Prot	NA	NA	Perm		
Protected Phases	7	4	8			
Permitted Phases				8		
Total Split (s)	32.0	60.0	28.0	28.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0		
Act Effct Green (s)	13.4	32.3	10.2	10.2		
Actuated g/C Ratio	0.41	1.00	0.32	0.32		
v/c Ratio	0.60	0.42	0.30	0.57		
Control Delay	11.8	0.7	10.7	6.9		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	11.8	0.7	10.7	6.9		
LOS	B	A	B	A		
Approach Delay		4.7	8.1			
Approach LOS		A	A			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 32.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 5.8 Intersection LOS: A
Intersection Capacity Utilization 68.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 37: Grandeza & SR-241 NB

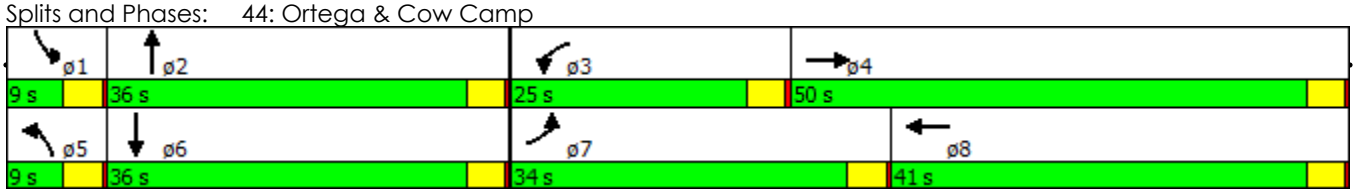


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	770	410	10	190	940	100	10	750	60	30	120	630
Future Volume (vph)	770	410	10	190	940	100	10	750	60	30	120	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	200		0	200		0	200		0
Storage Lanes	2		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3539	3705	0	1770	3654	0	1770	3669	0	1770	3103	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3539	3705	0	1770	3654	0	1770	3669	0	1770	3103	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			10			7			439	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		681			575			767			588	
Travel Time (s)		10.3			8.7			11.6			8.9	
Confl. Peds. (#/hr)			20			20			20			20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	811	443	0	200	1094	0	11	852	0	32	789	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Total Split (s)	34.0	50.0		25.0	41.0		9.0	36.0		9.0	36.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Act Effct Green (s)	28.7	48.0		17.3	36.5		5.0	32.1		5.0	35.6	
Actuated g/C Ratio	0.25	0.42		0.15	0.32		0.04	0.28		0.04	0.31	
v/c Ratio	0.91	0.29		0.75	0.93		0.14	0.82		0.42	0.86dr	
Control Delay	58.0	23.6		64.9	53.1		59.7	47.0		72.1	17.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.0	23.6		64.9	53.1		59.7	47.0		72.1	17.0	
LOS	E	C		E	D		E	D		E	B	
Approach Delay		45.9			54.9			47.2			19.2	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 114.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 43.7 Intersection LOS: D
Intersection Capacity Utilization 86.7% ICU Level of Service E
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 44: Ortega & Cow Camp

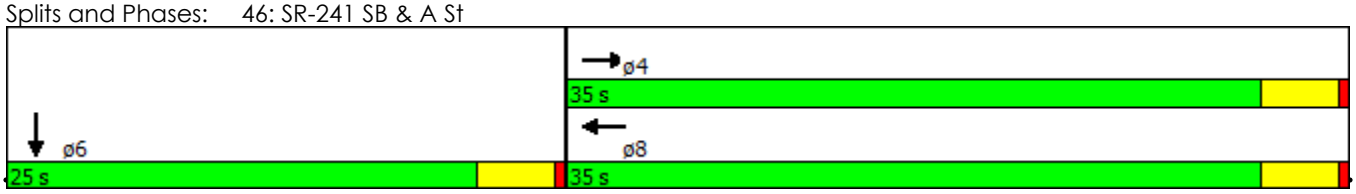


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	200	160	0	120	0	0	0	0	0	0	260
Future Volume (vph)	0	200	160	0	120	0	0	0	0	0	0	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1751	0	0	1863	0	0	0	0	0	1611	0
Flt Permitted												
Satd. Flow (perm)	0	1751	0	0	1863	0	0	0	0	0	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		99									724	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		708			745			731			754	
Travel Time (s)		10.7			11.3			11.1			11.4	
Confl. Peds. (#/hr)						20						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	379	0	0	126	0	0	0	0	0	274	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA						NA	
Protected Phases		4			8						6	
Permitted Phases												
Total Split (s)		35.0			35.0						25.0	
Total Lost Time (s)		4.0			4.0						4.0	
Act Effct Green (s)		12.2			12.2						21.2	
Actuated g/C Ratio		0.29			0.29						0.51	
v/c Ratio		0.65			0.23						0.23	
Control Delay		14.7			11.6						0.5	
Queue Delay		0.0			0.0						0.0	
Total Delay		14.7			11.6						0.5	
LOS		B			B						A	
Approach Delay		14.7			11.6						0.5	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 41.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.2 Intersection LOS: A
Intersection Capacity Utilization 43.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 46: SR-241 SB & A St



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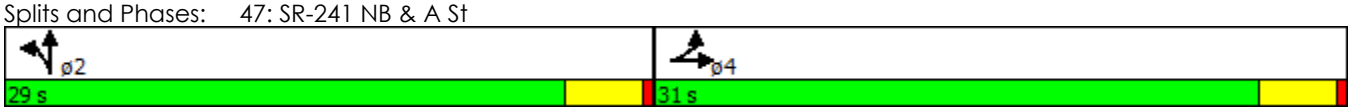
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	0	0	0	0	0	120	0	0	0	0	0
Future Volume (vph)	200	0	0	0	0	0	120	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	1863	0	0	0	0	1770	1863	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		745			693			878			737	
Travel Time (s)		11.3			10.5			13.3			11.2	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	211	0	0	0	0	0	126	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Total Split (s)	31.0	31.0					29.0	29.0				
Total Lost Time (s)	4.0	4.0					4.0	4.0				
Act Effct Green (s)	10.8						29.6					
Actuated g/C Ratio	0.22						0.61					
v/c Ratio	0.54						0.12					
Control Delay	20.6						5.2					
Queue Delay	0.0						0.0					
Total Delay	20.6						5.2					
LOS	C						A					
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 48.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 43.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 47: SR-241 NB & A St

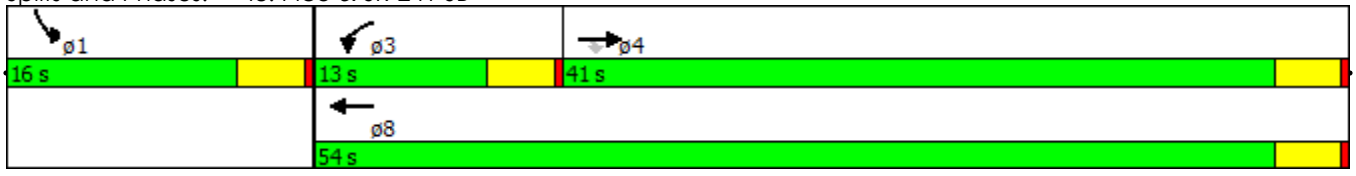


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1740	710	190	750	0	0	0	0	250	0	510
Future Volume (vph)	0	1740	710	190	750	0	0	0	0	250	0	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	200		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1524	1770	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			662									431
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1082			751			1041			1082	
Travel Time (s)		16.4			11.4			15.8			16.4	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1832	747	200	789	0	0	0	0	263	0	537
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Perm	Prot	NA					Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Total Split (s)		41.0	41.0	13.0	54.0					16.0		
Total Lost Time (s)		4.0	4.0	4.0	4.0					4.0		
Act Effct Green (s)		37.0	37.0	9.0	50.0					11.9		69.9
Actuated g/C Ratio		0.53	0.53	0.13	0.72					0.17		1.00
v/c Ratio		0.98	0.67	0.88	0.31					0.87		0.34
Control Delay		34.0	5.0	68.8	4.0					59.2		0.6
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		34.0	5.0	68.8	4.0					59.2		0.6
LOS		C	A	E	A					E		A
Approach Delay		25.6			17.1							
Approach LOS		C			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 22.6 Intersection LOS: C
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 48: Pico & SR-241 SB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1130	850	70	740	0	200	0	280	0	0	0
Future Volume (vph)	0	1130	850	70	740	0	200	0	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	1583	1770	3539	0	1770	0	1583	0	0	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	3539	1536	1770	3539	0	1770	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			809						217			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		751			1245			1235			1062	
Travel Time (s)		11.4			18.9			18.7			16.1	
Confl. Peds. (#/hr)			20									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1189	895	74	779	0	211	0	295	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA	Free	Prot	NA		Prot		Perm			
Protected Phases		4		3	8		5					
Permitted Phases			Free						2			
Total Split (s)		37.0		11.0	48.0		22.0		22.0			
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0			
Act Effct Green (s)		27.3	60.1	6.8	33.1		15.6		18.7			
Actuated g/C Ratio		0.45	1.00	0.11	0.55		0.26		0.31			
v/c Ratio		0.74	0.58	0.37	0.40		0.46		0.46			
Control Delay		17.2	1.6	34.1	7.8		24.0		9.4			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay		17.2	1.6	34.1	7.8		24.0		9.4			
LOS		B	A	C	A		C		A			
Approach Delay		10.5			10.0							
Approach LOS		B			B							

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 60.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 11.1 Intersection LOS: B
Intersection Capacity Utilization 56.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 49: Pico & SR-241 NB

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Appendix F

Water Supply Assessment

ORANGE COUNTY AFFORDABLE HOUSING IMPLEMENTATION PROGRAM – THE RANCH PLAN

WATER SUPPLY ASSESSMENT

June 2016

Prepared for:

SANTA MARGARITA WATER DISTRICT

Prepared by:
PSOMAS
3 Hutton Centre Drive
Suite 200
Santa Ana, CA 92707
Project No. 3COO009500

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TABLES

FIGURES

ABBREVIATIONS/ACRONYMS

AF	Acre-feet
AFY	Acre-feet per year
AHIA	Affordable Housing Implementation Agreement
AMP	Allen-McColloch Pipeline
AWWA	American Waterworks Association
APW	Advanced Purified Water
BMP	Best Management Practice
CCC	California Coastal Commission
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CRA	Colorado River Aqueduct
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
DU	Dwelling Unit
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EOCF	East Orange County Feeder
ESA	Endangered Species Act
ET	Evapotranspiration
ETWD	El Toro Water District
FEIR	Federal Environmental Impact Report
FY	Fiscal Year
gpcd	Gallons Per Capita per Day
Gpd	gallons per day
Gpm	gallons per minute
GSWC	Golden State Water Company
HCP	Habitat Conservation Plan
IRP	Integrated Resources Planning
IRWD	Irvine Ranch Water District
Ksf	Thousand square feet
LBCWD	Laguna Beach County Water District
MAF	Million Acre Feet
MCB	Marine Corps Base
MCL	Maximum Contaminant Level
Metropolitan, MWD	Metropolitan Water District of Southern California
MWC	Mutual Water Company
mgd	million gallons per day
MNWD	Moulton Niguel Water District
MOU	Memorandum of Understanding
MWDOC	Municipal Water District of Orange County
NDW	Non-Domestic Water
OCWRP	Oso Creek Water Reclamation Plant
PA	Planning Area
QSA	Quantification Settlement Agreement

RMV	Rancho Mission Viejo
RPDA	Ranch Plan Development Agreement
RUWMP	Regional Urban Water Management Plan
SAMP	Special Area Management Plan
SB	Senate Bill
SCWD	South Coast Water District
SDCWA	San Diego County Water Authority
SJBA	San Juan Basin Authority
Sf	square feet
SMWD	Santa Margarita Water District
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAF	Thousand Acre-Feet
TDS	Total Dissolved Solids
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WSAP	Water Supply Allocation Plan
WTP	Water Treatment Plant

ES EXECUTIVE SUMMARY

This Water Supply Assessment (WSA) has been prepared for the development of affordable housing pursuant to the Affordable Housing Implementation Agreement for Rancho Mission Viejo (AHIA) in association with the development of the Ranch Plan Planned Community (Proposed Project). The Proposed Project is within Santa Margarita Water District's (SMWD or District) water service area in accordance with applicable sections of the Public Resources Code and California Water Code.

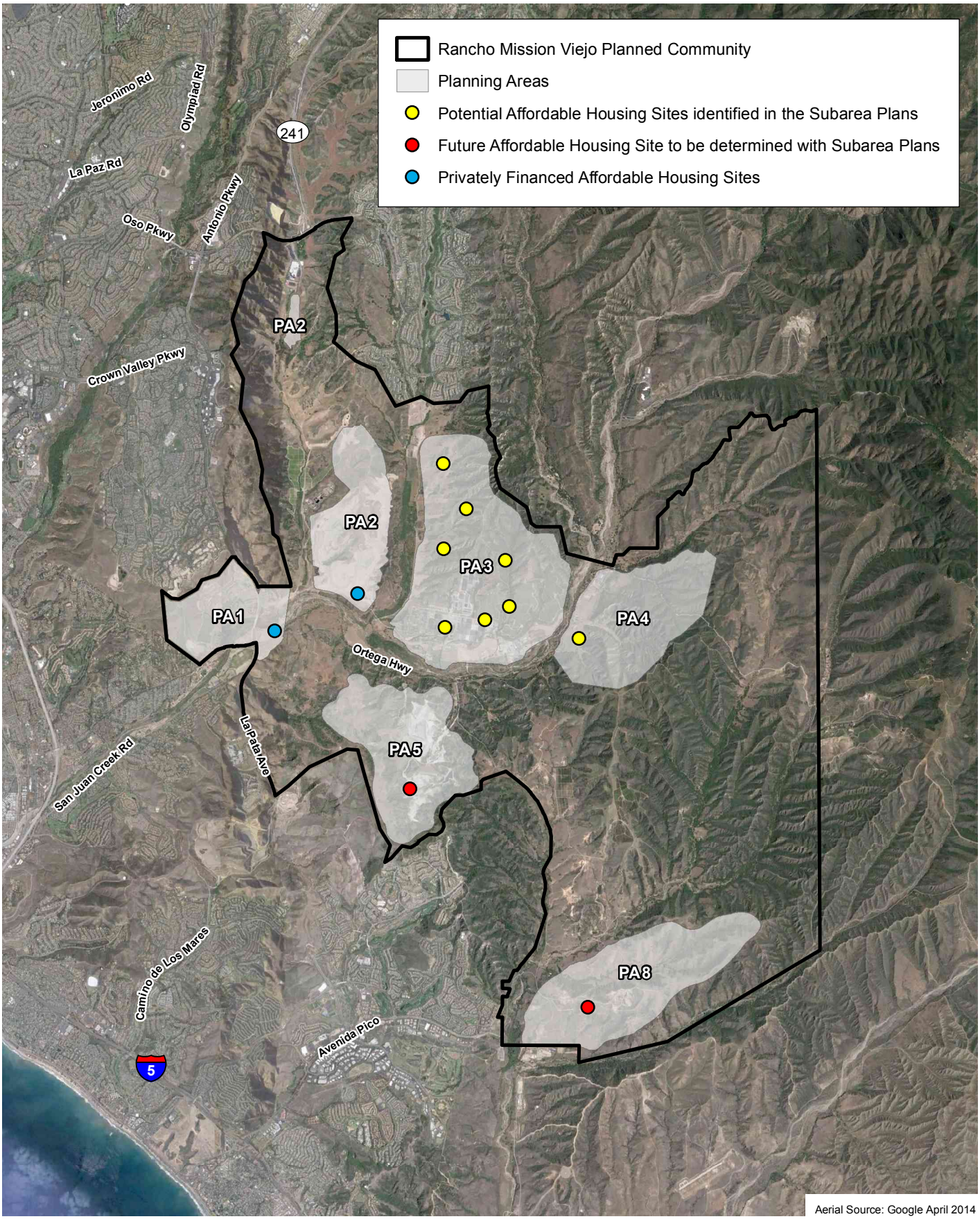
The Proposed Project consists of up to 1,329 affordable housing units to be developed in the Ranch Plan Planned Community located in unincorporated southern Orange County[1]. The Ranch Plan Planned Community is adjacent to the planned community of Ladera Ranch and the cities of San Juan Capistrano, and San Clemente on the west; Marine Corps Base Camp Pendleton in San Diego County on the south; and Caspers Wilderness Park and the Cleveland National Forest on the east. The regional location and local vicinity maps are depicted on Figure ES.1.

As part of the overall approval process for the Ranch Plan Planned Community, an AHIA was developed pursuant to the Ranch Plan Development Agreement (RPDA). The AHIA generally requires Rancho Mission Viejo (RMV) to provide the County with developable land at various sites within the Ranch Plan Planned Community ranging in size from 2 to 10 acres, for a total of 60 gross acres of property (Dedicated Land) for rental units for low and very-low income households and restricted to such use for a period of 55 years.

The County is responsible for preparing the CEQA documentation for the dwelling units associated with the "Orange County Affordable Housing Implementation Program", which is over and above the 14,000 dwelling unit cap of the Ranch Plan Planned Community. The 1,329 dwelling units would be distributed within six Ranch Plan Planning Areas (PA): PA-1, PA-2, PA-3, PA-4, PA-5, and PA-8, which are shown on Figure ES.1. There is one affordable housing site in each of the above planning areas, with the exception of PA-3, where 7 affordable housing sites are currently planned.

The purpose of this WSA is to assess water supply sufficiency to provide for all District water service area demands including the Project demands now and in the future. This WSA utilizes information developed and presented in the District's 2015 Urban Water Management Plan (UWMP), which included the Project demands, to assess water supply sufficiency for the District's water service area through the year 2040.

[1] The 1.329 units supports the maximum 1,110 units being evaluated by the County of Orange in a Program EIR for units in The Ranch Plan Planning Areas 3, 4, 5, and 8, in addition to 219 units approved in Planning Areas 1 and 2. The units in Planning Areas 1 and 2 are below the threshold where a WSA is required pursuant to Senate Bill (SB) 610. As such the units in Planning Areas 1 and 2 also did not require a Water Supply Verification (WSV) pursuant to SB 221 because they were below the size threshold and are exempt from the WSV requirement because they are affordable housing projects.



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Potential Affordable Housing Sites

Figure ES-1

Orange County Affordable Housing Implementation Program

N W E S

1.5 0.75 0 1.5

Miles

PSOMAS

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ES.1 Water Demand Analysis

ES.1.1 Affordable Housing (Project) Demands

Affordable housing dwelling units will be a mix of one, two, and three bedroom apartments, at 25 dwelling units/gross acre, that will have common exterior areas irrigated with non-domestic (non-potable) water, i.e. no exterior domestic water use. A pool/clubhouse facility is assumed for each affordable housing site.

The phasing for the development of affordable housing and associated domestic water demands is shown in Table ES.1. At buildout (assumed to occur within a year 2026-2030 timeframe), a total domestic water demand of 277.3 acre-feet per year (AFY) is estimated. The phasing for the development of affordable housing and associated non-domestic water (recycled water or non-potable groundwater) demands is shown in Table ES.2. At buildout in 2026-2030, a total non-domestic water (NDW) demand of 45.7 AFY is estimated.

Table ES.1
Estimated Affordable Housing Site Domestic Water Demands

Dwelling Units	DU Water Demand (AFY)	Pool/CH Water Demand (AFY)	Total Water Demand (AFY)	5-Yr Range for Full Development
472	92.6	5.5	98.1	2016 - 2020
707	138.6	8.4	147.0	2021 - 2025
150	29.4	2.8	32.2	2026 - 2030
1,329	260.6	16.7	277.3	-

DU = 175 gpd/DU; clubhouse = 225 gpd/ksf (5,000 sf): pool = 45,000 gal/yr

Table ES.2
Estimated Affordable Housing Site Non-Domestic Water Demands

AH Gross Acres	AH Irrigated Acres[(a)]	NDW Demand Factor (af/ac)	NDW Demand (AFY)	5-Yr Range for Full Development
17.9	4.5	3.5	15.7	2016 - 2020
28.3	7.1	3.5	24.8	2021 - 2025
6.0	1.5	3.5	5.3	2026 - 2030
52.2	13.1	-	45.7	-

(a) Irrigated acres = 25% gross acres

Estimated water demands for the 1,329 affordable dwelling units in PA-1, PA-2, PA-3, PA-4, PA-5, and PA-8 and the associated pool/clubhouse facilities (Project) were included in SMWD's 2015 Urban Water Management Plan (UWMP), which will provide the supporting water supply and demand analysis and verification for this WSA. District water service area demands including the Project water demands will be compared with available water supplies to determine water supply sufficiency for a minimum 20-year planning period through the year 2040.

ES.1.2 SBx7-7 Water Use Requirements

Senate Bill x7-7 (SBx7-7) was enacted in November 2009 (Water Conservation Act of 2009), requiring all water suppliers to increase water use efficiency. The legislation set an overall statewide goal of reducing per-capita urban water use by 20% by December 31, 2020 and to make incremental progress towards this goal by reducing per capita water use by at least 10% by December 31, 2015.

In preparing the 2010 UWMP, each urban retail water supplier was required to develop baseline daily per-capita water use, minimum baseline daily per-capita water use, and target daily per-capita water use for 2015 and 2020 based on one of four approved methodologies (SBx7-7 2015 and 2020 targets).

For the 2015 UWMP, water agencies were required to re-calculate these targets and to demonstrate compliance with their established water use target for 2015, which will also demonstrate whether the agency is currently on track to achieve its 2020 target. The SBx7-7 2015 and 2020 targets were calculated in the District's 2015 UWMP to be 190 gpcd and 169 gpcd for 2015 and 2020, respectively, and actual District per-capita water use was calculated to be 153 gpcd in FY 2015, which is lower than both of these targets.

A retail supplier may choose to meet the SBx7-7 targets on its own (as reported above) or it may form a regional alliance with other retail suppliers to meet the water use targets as a region. The District is a member of the Orange County 20x2020 Regional Alliance formed by the Municipal Water District of Orange County (MWDOC), SMWD's wholesaler, and in its 2015 UWMP, MWDOC determined the weighted 2015 and 2020 targets for the region to be 176 gpcd and 158 gpcd, respectively. The actual 2015 water use in the region was 125 gpcd, which is also lower than both the 2015 and 2020 targets.

ES.1.3 SMWD Water Conservation

SMWD's Board of Directors adopted its Comprehensive Water Conservation Program (Conservation Program) Ordinance No. 2014-10-03 on October 17, 2014. Along with permanent water conservation requirements, SMWD's Conservation Program consists of four rationing stages to respond to a reduction in potable water available to SMWD for distribution to its customers. In accordance with this ordinance, the Board's implementation of Stage 2 water use restrictions (as declared by Resolution No. 2014-08-03) remain in effect unless a mandatory conservation stage is implemented by the Board.

The current Water Conservation Program Ordinance and the implementation of Stage 2 water use restrictions is in response to California's worst drought on record, which started in 2012 and has continued into 2016.

In April 2015, Governor Jerry Brown issued Executive Order B-29-15 requiring the State Water Resources Control Board (State Board) to implement measures to cut the State's overall water usage by 25% due to the continuing drought. In response to the executive order, the State Board adopted an emergency conservation regulation which as a general matter required California's approximately 400 urban retail water suppliers to collectively reduce potable water use 25% (on average) below 2013 levels by the end of February 2016, with usage reported to the State on a monthly basis. Water agencies were assigned various reduction goals, and SMWD's reduction goal was set at 24% initially and subsequently adjusted to 23%.

Since 2010, SMWD's potable water use has decreased through the implementation of previous Water Conservation Ordinances; and has decreased a cumulative 24.3% for the first nine recording months (June 2015 through March 2016) relative to year 2013 water usage in response to the District's conservation goal set by the State

In May 2016, the State Board adopted a new emergency regulation which, among other things, requires urban retail water suppliers to either (1) develop and report on individualized water conservation and reduction standards according to prescribed methodologies, or (2) reduce its total potable water production by the percentage identified as its conservation standard under the previous emergency regulation, subject to potential adjustments. The new regulation is currently scheduled to remain in effect until February 2017.

ES.1.4 Projected District Water Demands

FY 2015 and projected domestic (potable) water and recycled water demands for the District water service area including the Project demands are shown in Table 4.5. Relative to FY 2015 District water demands, total water demands are projected to increase only by 0.8% by 2040 despite a projected population increase of 27.4% (156,949 in 2015 to 200,026 in 2040). Total potable water demands are projected to decrease by approximately 8.2% by 2040 relative to 2015, while recycled water demand is projected to increase by approximately 33.4% for the same time span. Estimated Project demands are less than 1% of the total District water service area demands.

ES.2 Water Supply Analysis

The District's main source of water supply is treated imported water purchased from MWDOC via the Metropolitan Water District of Southern California (Metropolitan). In FY 2015, the District's total water supply was approximately 78% imported water and 22% recycled water.

Table ES.3
Water Demand Projections for SMWD Water Service Area (AFY)

	2015	2020	2025	2030	2035	2040
Domestic (Potable) Water						
Project	0	98	245	277	277	277
Other District WSA	26,910	26,290	26,386	25,709	24,418	24,418
Total Potable Water	26,910	26,388	26,581	25,986	24,695	24,695
Recycled Water						
Project	0	16	41	46	46	46
Other District WSA	7,495	7,984	8,959	9,954	9,954	9,954
Total Recycled Water	7,495	8,000	9,000	10,000	10,000	10,000
Total District WSA Water Demands	34,405	34,388	35,581	35,986	34,695	34,695
% Project Demands	0	0.3	0.8	0.9	0.9	0.9

By 2040, the District's water supply portfolio is projected to be more diverse, consisting of approximately 48% from treated imported water; 13% from the proposed Cadiz Valley Water Conservation, Recovery and Storage Program; 13% from the proposed San Juan Basin Groundwater and Facilities Plan Update (basin recharge with a combination of stormflows, urban runoff, and recycled water to maximize the potable water supply through indirect potable reuse); and 26% from recycled water production. The District is also seeking 2,000 AFY of water transfers as an emergency supply source.

ES.2.1 Recycled Water System Expansion

The District is planning to expand the Chiquita Water Reclamation Plant (CWRP) tertiary capacity from 6 mgd to 10 mgd by 2018, which is an increase in recycled water supply of approximately 4,500 AFY. New recycled water distribution facilities will be constructed in association with this plant expansion.

SMWD is planning the construction of the 4,800 acre-foot Ortega Seasonal Storage Reservoir and the 5,000 acre-foot Trampas Canyon Seasonal Storage Reservoir to store recycled water produced by CWRP during low seasonal recycled water demand. The proposed sites are included in the approved Ranch Plan, the Habitat Conservation Plan (HCP), and the Special Area Management Plan (SAMP) environmental documentation.

The 3A Treatment Plant expansion will provide an additional 3,000 AFY of capacity for recycled water use, thereby increasing water supply reliability by reducing dependence on imported water.

The District is also planning the construction of an Advanced Purified Water (APW) facility in 2016 that will produce approximately 300 AFY of recycled water to provide make-up water for Lake Mission Viejo, which is currently supplied with imported water; and additional improvement to the District's existing recycled water system through new piping connections.

ES.2.2 San Juan Basin Recharge

SMWD is a member of the San Juan Basin Authority (SJBA) a joint powers agency, formed to manage portions of the San Juan Creek watershed, including the San Juan Basin. In 2014, SJBA adopted the San Juan Basin Groundwater and Facilities Plan Update which identifies the potential to recharge the San Juan Basin with a combination of stormflows, urban runoff, and recycled water to maximize the potable water supply through indirect potable reuse.

By 2018, SMWD plans to pump approximately 1,000 to 2,000 AFY of water from the basin, treat it with desalters, and provide it as a potable water supply. If the first approach is successful and regulatory approval is obtained, the recharge program will use recycled water for recharge of the basin and approximately 5,000 AFY would be extracted by 2027. The Trampas Canyon Reservoir will provide seasonal storage for the recycled water that is used for recharge. Without the Trampas Canyon Reservoir, the maximum extraction is expected to be 1,000 to 2,000 AFY.

ES.2.3 Cadiz Valley Water Conservation, Recovery and Storage Program

The District is leading the Cadiz Valley Water Conservation, Recovery and Storage Project to provide a potential new, reliable water source to the District and other southern California water agencies by managing a groundwater basin that is part of a 1,300 square mile watershed located in eastern San Bernardino County. The project would manage the aquifer and use water that would otherwise be evaporated from local dry lakes. The project is designed to provide 50,000 AFY of potable water on average.

In Phase 1, a system would be constructed to capture the aquifer's average annual recharge that would otherwise evaporate from the Bristol and Cadiz Dry Lakes. If approved, Phase II would provide storage of imported water from the Colorado River in the Cadiz aquifer system. The water would be available for use in dry years, helping improve the region's water supply reliability.

The District will purchase at least 5,000 AFY of water from the Cadiz Project, which is approximately 20% of the District's potable water supply. The District has the potential to purchase an additional 10,000 AFY.

ES.2.4 Imported Water Supply

The District will still rely on imported water for a majority of its water supply, but the imported water supply will also become more diverse and reliable. The Baker Water Treatment Plant is a new drinking water treatment plant to be located at the existing Baker Filtration Plant in the City of Lake Forest. This plant will have a capacity of 28.1 mgd and

is a joint regional project that will increase the local drinking water supply for the District, Irvine Ranch Water District (IRWD), Moulton Niguel Water District (MNWD), El Toro Water District (ETWD), and Trabuco Canyon Water District (TCWD).

The plant will treat raw, imported water from Metropolitan and ultimately local surface water from Irvine Lake using advanced microfiltration and ultraviolet light disinfection, resulting in high quality drinking water that exceeds current regulatory requirements. Construction is underway and is expected to be completed in October 2016. The District's plant capacity ownership equates to approximately 8.4 mgd if supply is available and capacity fully used.

While this will not increase the imported water supply for the District (the District's imported water rights remain the same), it does provide an additional route for the delivery of treated imported water to the District.

Imported water comes from the Colorado River and from the State Water Project (SWP). Much of the SWP water supply passes through the San Francisco-San Joaquin Bay-Delta (Bay-Delta). The SWP consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by DWR. This statewide water supply infrastructure provides water to 29 urban and agricultural agencies throughout California. More than two-thirds of California's residents obtain some of their drinking water from the Bay-Delta system.

The Bay-Delta ecosystem is facing various challenges caused by a number of factors such as agricultural runoff, predation of native fish species, urban and agricultural discharge, changing ecosystem food supplies, and overall system operation. These and other issues in the Delta have led to reductions in the availability and reliability of water supply deliveries from the SWP. As further discussed below, these operational and regulatory constraints will likely continue until a long-term solutions are developed for the Delta.

In April 2015, the Brown Administration announced California WaterFix, as well as a separate ecosystem restoration effort called California EcoRestore. Together, the California WaterFix and California EcoRestore will make significant contributions toward achieving the coequal goals of providing a more reliable water supply for California and protecting, restoring and enhancing the Delta ecosystem established in the Sacramento-San Joaquin Delta Reform Act of 2009. In addition to enhancing the Delta ecosystem there are a number of major actions, projects, and programs Metropolitan has undertaken to improve SWP reliability. As further discussed in this WSA, DWR's 2015 State Water Project Delivery Capability Report provides a comprehensive analysis and projection of the near and long-term availability of SWP supplies.

There are a few items that may reduce the availability of the imported water from either or both SWP supplies. These could be regulatory restrictions due to water supply agreements with neighboring states or other water supply entities, environmental considerations that may develop or through delivery interruptions that may occur due to seismic or other possible calamities.

ES.2.5 Existing and Projected SMWD Water Supply Sources

SMWD water supplies for FY 2015 are shown in Table ES.4. A summary of projected SMWD water supplies for 2020 through 2040 are shown in Table ES.5.

Table ES.4
SMWD FY 2015 Supplies

Water Supply	FY 2015	
	Actual Volume	Water Quality
San Juan Basin Groundwater	0	Drinking Water
MWDOC Purchased Imported Water	26,910	Drinking Water
Recycled Water	7,495	Recycled Water
Total	34,405	

Table ES.5
Projected SMWD Water Supplies (AFY)

Water Supply	2020	2025	2030	2035	2040
Purchased Imported Water - MWDOC	11,500	9,700	8,100	6,800	6,800
Purchased Imported Water – Baker WTP	9,400	9,400	9,400	9,400	9,400
Cadiz Recovery and Storage	5,000	5,000	5,000	5,000	5,000
Transfers – Emergency Storage	2,000	2,000	2,000	2,000	2,000
San Juan Basin IPR Groundwater	2,000	4,000	5,000	5,000	5,000
Recycled Water	8,000	9,000	10,000	10,000	10,000
Total	37,900	39,100	39,500	38,200	38,200

ES.3 Water Supply Reliability Assessment

In their 2015 UWMP, Metropolitan estimated supply capability and projected demands for an average (normal) year based on an average of hydrologies for the years 1922-2012; for a single dry-year based on a repeat of the hydrology in the year 1977; and for multiple dry years based on a repeat of the hydrology of 1990-1992. For each of these scenarios there is a projected surplus of supply in every forecast year. Projected supply surpluses, based on the capability of current supplies, range from 1% to 89% of projected demands. With the inclusion of supplies under development, potential surpluses range from 7% to 110% of projected demands.

In the District's 2015 UWMP, normal-year water supply and demand projections for the planning period 2020 through 2040 were compared, and a supply surplus was projected throughout the planning period as shown in Table ES.6.

Table ES.6
Normal-Year Supply and Demand Comparison

Supply/Demand (AFY)	2020	2025	2030	2035	2040
Supply totals	37,900	39,100	39,500	38,200	38,200
Demand totals	34,388	35,581	35,986	34,695	34,695
Supply Surplus	3,512	3,519	3,514	3,505	3,505

A Single-dry year is defined as a single year of no to minimal rainfall within a period that average precipitation is expected to occur. The District has documented that it is 100% reliable for single-dry year demands for the period 2020 through 2040, using FY 2002 as the basis for single dry-year demand, and assuming a demand increase of 4%. As shown in Table ES.7, a supply surplus is still projected throughout the planning period.

Table ES.7
Single-Dry Year Supply and Demand Comparison

Supply/Demand (AFY)	2020	2025	2030	2035	2040
Supply totals	37,900	39,100	39,500	38,200	38,200
Demand totals	35,764	37,004	37,425	36,083	36,083
Supply Surplus	2,136	2,096	2,075	2,117	2,117

Based on historical demand and rainfall data, 2012 through 2014 was determined to be the driest 3-year period for the SMWD water service area, with demands projected to increase 2% for the first year; 4% for the second year; and 9% for the third year. As shown in Table ES.8, the District can supply multiple-dry year water demands with a supply surplus projected throughout the planning period.

Table ES.8
Multiple-Dry Year Supply and Demand Comparison

Supply/Demand (AFY)		2020	2025	2030	2035	2040
First year	Supply totals	37,900	39,100	39,500	38,200	38,200
	Demand totals	35,076	36,293	36,706	35,389	35,389
	Supply Surplus	2,824	2,807	2,794	2,811	2,811
Second year	Supply totals	37,900	39,100	39,500	38,200	38,200
	Demand totals	35,764	37,004	37,425	36,083	36,083
	Supply Surplus	2,136	2,096	2,075	2,117	2,117
Third year	Supply totals	37,900	39,100	39,500	38,200	38,200
	Demand totals	37,483	38,783	39,225	37,818	37,818
	Supply Surplus	417	317	275	382	382

1.0 INTRODUCTION

This Water Supply Assessment (WSA) has been prepared for the development of affordable housing (up to 1,329 dwelling units) in association with the development of the Ranch Plan Planned Community within SMWD's water service area (Project) in accordance with applicable sections of the Public Resources Code and California Water Code.

The purpose of this WSA is to evaluate whether the total projected water supplies available to the District during normal, single-dry, and multiple-dry year scenarios over the next 20-year projection ae sufficient to meet the demands associated with the proposed Project in addition to the District's other existing and planned future uses. This WSA utilizes information developed and presented in the District's 2015 Urban Water Management Plan (UWMP), which included the Project demands, to assess water supply sufficiency for the District's water service area through the year 2040.

2.0 LEGISLATION

As the proposed Project will develop more than 500 dwelling units, the State requires a Water Supply Assessment (WSA) must be completed in accordance with Water Code section 10910 et seq., commonly referred to as Senate Bill (SB) 610 to evaluate the potential effects of the proposed development on current and future water supplies. The following outlines the requirements of SB 610.

2.1 SB 610 – Water Supply Assessment

SB 610 became effective on January 1, 2002. It mandates that a city or county proposing to approve a "project" as defined by Water Code section 10912 that is subject to CEQA review must also (i) identify any public water system that may supply water for the project, and (ii) request the public water system to prepare a WSA. The assessment is to include the following:

1. A discussion of whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing.
2. The identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project.
3. A description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts.
4. An identification of water supply entitlements, water rights, or water service contracts by the following means:
    - Written contracts or other proof of entitlement to an identified water supply.
    - Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
    - Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
    - Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.
5. If no water has been received in prior years by the public water system under its water supply entitlements, rights, or contracts, an identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.
6. If groundwater is included for the supply for a proposed project, the following additional information is required:

a. Review of any information contained in the Urban Water Management Plan (UWMP) relevant to the identified water supply for the proposed project.

b. Description of any groundwater basin(s) from which the proposed project will be supplied. For adjudicated basins, the WSA must include a copy of the court order or decree adopted and a description of the amount of groundwater the public water system has the legal right to pump under the order or decree. For non-adjudicated basins, information on whether DWR has identified the basin as over-drafted or has projected that the basin will become over-drafted if present management conditions continue, in the most current bulletin of DWR that characterizes the condition of the basin, and a detailed description of the efforts being undertaken in the basin to eliminate the long-term overdraft condition.

c. Description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin from which the proposed project will be supplied, Which analysis and description must be based on information that is reasonably available, including, but not limited to, historic use records.

d. Description and analysis of the amount and location of groundwater projected to be pumped by the public water system from any groundwater basin from which the proposed project will be supplied, which analysis and description must be based on information that is reasonably available, including, but not limited to, historic use records.

e. Analysis of the sufficiency of the groundwater from the basin(s) from which the proposed project will be supplied, unless the sufficiency of groundwater needed to meet the projected demand of the proposed project has been addressed in the applicable provisions of the water supplier's most recently adopted UWMP.

After a WSA is completed and adopted by the applicable water supplier, it must be submitted to the city or county that is serving as the CEQA lead agency for the proposed project, and the city or county must include WSA in any environmental documentation prepared for the project. The city or county may include in its environmental document an evaluation of any information included in the WSA. Ultimately, the city or county as the CEQA lead agency must determine, based on the entire record, whether the projected water supplies will be sufficient to satisfy the demands of the proposed project, in addition to the water supplier's existing and planned future uses.

3.0 RANCH PLAN COMMUNITY AFFORDABLE HOUSING

3.1 Project Description

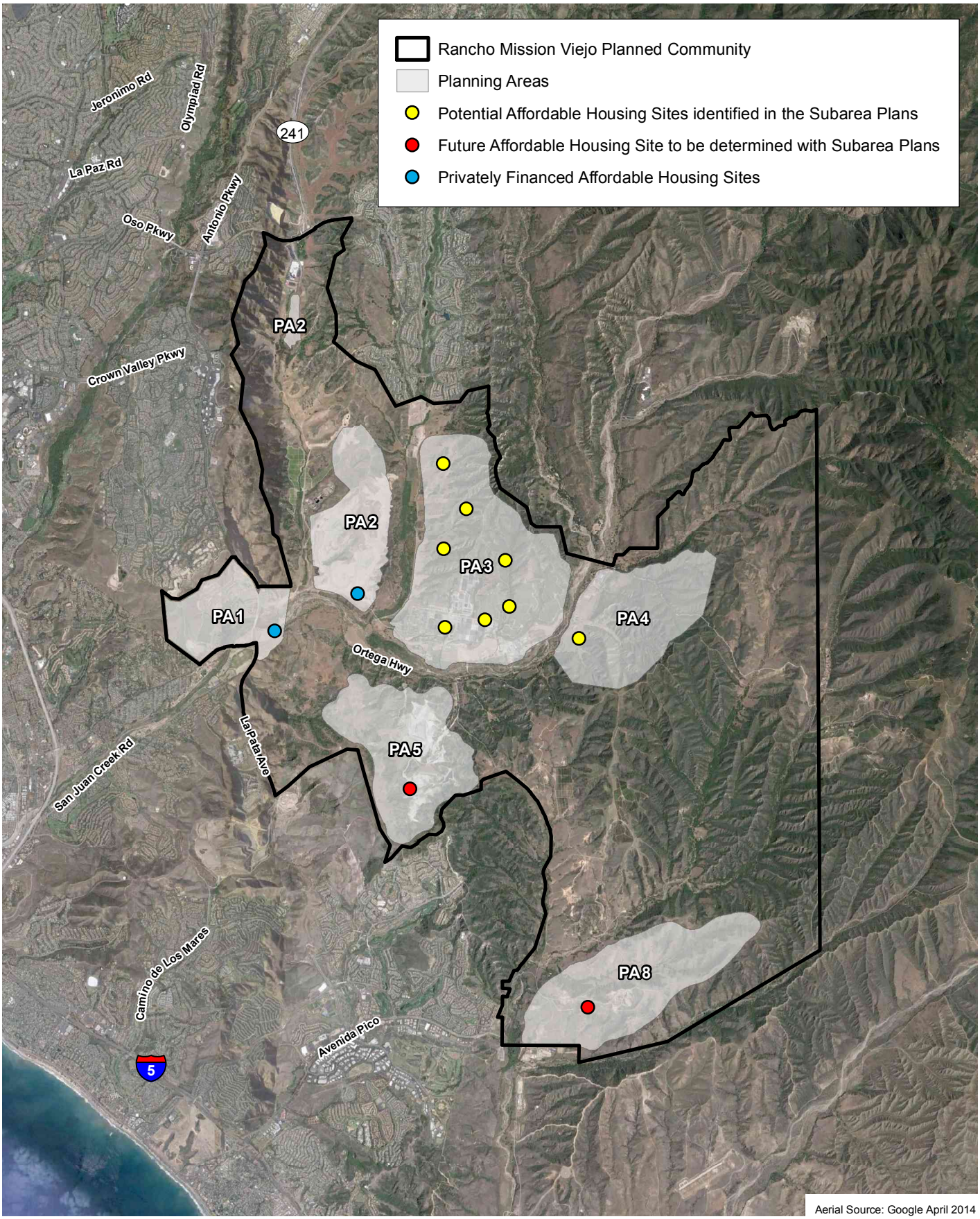
The Project will be implemented within the Ranch Plan Planned Community located in unincorporated southern Orange County. The Ranch Plan Planned Community is adjacent to the planned community of Ladera Ranch and the cities of San Juan Capistrano, and San Clemente on the west; the city of Rancho Santa Margarita on the north; Marine Corps Base (MCB) Camp Pendleton in San Diego County on the south; and Caspers Wilderness Park and the Cleveland National Forest on the property's eastern edge. The regional location and local vicinity maps are depicted in Figure 3.1.

On November 8, 2004, the Orange County Board of Supervisors approved the Ranch Plan Planned Community and associated Ranch Plan Planned Community Program Text, a General Plan Amendment, a Planned Community Zone Change, and a Development Agreement. In addition, the Board certified The Ranch Plan Program Environmental Impact Report No. 589 (FEIR 589). The Ranch Plan Planned Community allows for the construction of 14,000 dwelling units, 3,480,000 square feet (sf) of Urban Activity Center (UAC) uses, 500,000 sf of Neighborhood Center uses, and 1,220,000 sf of business park uses. Approximately 75% of the Ranch Plan Planned Community site will remain in permanent open space.

As part of the overall approval process for the Ranch Plan Planned Community, an Affordable Housing Implementation Agreement (AHIA) was developed pursuant to the Ranch Plan Development Agreement (RPDA). The AHIA generally requires Rancho Mission Viejo (RMV) to provide the County with developable land at various sites within the Ranch Plan Planned Community ranging in size from 2 to 10 acres, for a total of 60 gross acres of property (Dedicated Land) for rental units for low and very-low income households and restricted to such use for a period of 55 years. The County is responsible for preparing the CEQA documentation for the dwelling units associated with the Affordable Housing Project, which are assumed to be over and above the 14,000 dwelling unit cap of the Ranch Plan Planned Community.

The total maximum of 1,329 dwelling units would be distributed within six Ranch Plan Planning Areas (PA): PA-1, PA-2, PA-3, PA-4, PA-5, and PA-8, which are shown on Figure 3.1.

The Ranch Plan Planned Community Program Text states that Affordable Housing sites will be identified as part of the Subarea Plans or subsequent Subarea Plan amendments. Currently, RMV has processed the Master Area Plans and Subarea Plans for PA-1, PA-2, PA-3 and PA-4. Multiple affordable housing sites have been identified in PA-2, PA-3 and PA-4. Though no affordable housing sites were initially identified in PA-1, RMV has entered into an agreement with the County for the development of the 3.4 gross-acre site in PA-1.



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Potential Affordable Housing Sites

Figure 3.1

Orange County Affordable Housing Implementation Program

N W E S

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A 3.4-gross acre site in PA-1 and a 4.4-gross acre site in Planning Subarea 2.1 are being developed using the private sector financing option, providing 7.8 gross acres and an additional 7.8 acres of credit for private financing. As a result, the aggregate 60 gross acres for affordable housing provided for in the RPDA and AHIA is now reduced to a total of 52.2 gross acres with a total of 44.4 acres remaining to be developed in PA-3, PA-4, PA-5 and PA-6.

The 3.4 gross-acre site in PA-1 is located in the northeast quadrant of the Antonio Parkway/Ortega Highway intersection. A total of 107 age-qualified senior apartments (restricted to age 55 years old and older) will be developed, with 70% for low-income households and 30% for very-low income housing. There will be a mix of one-bedroom and two-bedroom apartment units. A pool and clubhouse facility will also be provided. Construction of the affordable is expected to begin and be completed in 2016.

The 4.4 gross-acre site in PA-2 is located north of Cow Camp Road and west of Los Patrones Parkway. A total of 112 family apartments (for all ages), with 70% for low-income households and 30% for very-low income housing. There will be 20 one-bedroom units; 58 two-bedroom units; and 34 3-bedroom units. A pool and clubhouse facility will also be provided. Construction of the affordable is expected to begin and be completed in 2016.

Three alternatives were identified in the Environmental Impact Report for the Orange County Affordable Housing Implementation Program for implementing the remaining 44.4 gross acres identified for affordable housing in the remaining planning areas (PA-3, PA-4, PA-5 and PA-8) in the Ranch Plan Planned Community. The alternatives considered various percentage combinations of affordable housing units funded with public-sector versus private-sector financing, and the associated credits (deductions in the gross-acre requirement) granted for private-sector financing. The highest estimated number of total dwelling units equaling 1,110 would occur if 100% of the affordable housing was funded using public finance sources (based on an estimated 25 dwelling units per gross acre for 44 gross acres).

To be conservative, 1,110 dwelling units are assumed in this WSA for future development in PA-3, PA-4, PA-5 and PA-8, which results in a total of 1,329 dwelling units including the 219 dwelling units identified for PA-1 and PA-2. There is one affordable housing site in each subject planning area, with the exception of PA-3, where 7 affordable housing sites are currently planned. A pool/clubhouse facility is assumed for each affordable housing site in each planning area. The affordable housing to be developed in terms of gross acres and dwelling units for the planning period 2016 through 2030 in 5-year increments is shown in Table 3.1.

Table 3.1
Estimated Affordable Housing DU Development

AH Gross Acres	Dwelling Units	5-Yr Range for Full Development
17.9	472	2016 - 2020
28.3	707	2021 - 2025
6.0	150	2026 - 2030
52.2	1,329	-

3.2 Estimated Project Water Demands

Affordable housing dwelling units will be a mix of one, two, and three bedroom apartments, at 25 dwelling units/gross acre, that will have common exterior areas irrigated with recycled water or non-potable groundwater, i.e. no exterior domestic water use. This type of dwelling unit correlates with a SMWD domestic water-use factor of 175 gallons per day per dwelling unit (gpd/du). Domestic water use for the clubhouse facility is estimated at 225 gpd per 1,000 square feet (ksf) for an average 5,000 sf clubhouse area; and pool water use is estimated at 45,000 gallons per year. Using these unit water use factors, domestic water use for the affordable housing site in each planning area is shown in Table 3.2. At buildout in 2026-2030, a total domestic water demand of 277.3 AFY is estimated.

The affordable housing dwelling unit sites will have common exterior areas irrigated with non-domestic water, i.e. recycled water or non-potable groundwater. Non-domestic water (NDW) demand for the affordable housing sites is shown in Table 3.3. At buildout in 2026-2030, a total non-domestic water demand of 45.7 AFY is estimated.

Table 3.2
Estimated Affordable Housing Site Domestic Water Demands

Dwelling Units	DU Water Demand[(a)] (AFY)	Pool/CH Water Demand (AFY)	Total Water Demand (AFY)	5-Yr Range for Full Development
472	92.6	5.5	98.1	2016 - 2020
707	138.6	8.4	147.0	2021 - 2025
150	29.4	2.8	32.2	2026 - 2030
1,329	260.6	16.7	277.3	-

DU = 175 gpd/DU; clubhouse = 225 gpd/ksf (5,000 sf): pool = 45,000 gal/yr

Table 3.3
Estimated Affordable Housing Site Non-Domestic Water Demands

AH Gross Acres	AH Irrigated Acres[(a)]	NDW Demand Factor (af/ac)	NDW Demand (AFY)	5-Yr Range for Full Development
17.9	4.5	3.5	15.7	2016 - 2020
28.3	7.1	3.5	24.8	2021 - 2025
6.0	1.5	3.5	5.3	2026 - 2030
52.2	13.1	-	45.7	-

(a) Irrigated acres = 25% gross acres

4.0 WATER DEMAND ANALYSIS

4.1 SBx7-7 Water Use Requirements

Senate Bill x7-7 (SBx7-7) was enacted in November 2009 (Water Conservation Act of 2009), requiring all water suppliers to increase water use efficiency. The legislation set an overall statewide goal of reducing per-capita urban water use by 20% by December 31, 2020 and to make incremental progress towards this goal by reducing per capita water use by at least 10% by December 31, 2015.

In preparing the 2010 UWMP, each urban retail water supplier was required to develop baseline daily per-capita water use, minimum baseline daily per-capita water use, and target daily per-capita water use for 2015 and 2020 based on utilizing one of four methods provided; with the target reduction for 2020 greater than the legislation's minimum water use reduction requirement. The four methods are:

- Method 1: 80% of the water supplier's baseline per capita water use
- Method 2: Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscape area water use; and commercial, industrial, and institutional uses
- Method 3: 95% of the applicable state hydrologic region target as stated in the State's April 30, 2009, draft 20x2020 Water Conservation Plan
- Method 4: A BMP Option based on standards that are consistent with the California Urban Water Conservation Council's (CUWCC) best management practices (BMPs).

For their 2015 UWMPs, water agencies must demonstrate compliance with their established water use target for 2015, which will also demonstrate whether the agency is currently on track to achieve its 2020 target.

In its 2015 UWMP, the District's per-capita water use was calculated to be 153 gpcd in FY 2015, which is significantly lower than its 2015 SBx7-7 target of 190 gpcd, and thus the District was compliant as shown in Table 4.1. The District's 2015 per-capita water use of 153 gpcd is also lower than its 2020 SBx7-7 target of 169 gpcd.

4.1.1 SBx7-7 Compliance with Regional Alliance

A retail supplier may choose to meet the SBx7-7 targets on its own (as reported above) or it may form a regional alliance with other retail suppliers to meet the water use targets as a region. Within a regional alliance, each retail water supplier will have an additional opportunity to achieve compliance under both an individual target and a regional target.

- If the Regional Alliance meets its water use target on a regional basis, all agencies in the alliance are deemed compliant.
- If the Regional Alliance fails to meet its water use target, each individual supplier will have an opportunity to meet their water use targets individually.

The District is a member of the Orange County 20x2020 Regional Alliance formed by MWDOC, its wholesaler. This regional alliance consists of 29 retail agencies in Orange County as described in MWDOC's 2015 UWMP. MWDOC provides assistance in the calculation of each retail agency's baseline water use and water use targets.

In 2015, the regional baseline and targets were revised to account for any revisions made by the retail agencies to their individual 2015 and 2020 targets. The regional water use target is the weighted average of the individual retail agencies' targets (by population). The Orange County 20x2020 Regional Alliance weighted 2015 target is 176 gpcd and 2020 target is 158 gpcd. The actual 2015 water use in the region was 125 gpcd, which is lower than the 2015 and 2020 SBx7-7 targets.

4.2 SMWD Water Conservation

SMWD's Board of Directors adopted its Comprehensive Water Conservation Program (Conservation Program) Ordinance No. 2014-10-03 on October 17, 2014. Along with permanent water conservation requirements, SMWD's Conservation Program consists of four rationing stages to respond to a reduction in potable water available to SMWD for distribution to its customers. In accordance with this ordinance, the Board's implementation of Stage 2 water use restrictions (as declared by Resolution No. 2014-08-03) shall remain in effect unless a mandatory conservation stage is implemented by the Board.

The current Water Conservation Program Ordinance and the implementation of Stage 2 water use restrictions is in response to California's worst drought on record, which started in 2012 and has continued into 2016. As of May 2016, more than 86% of the State is still rated as experiencing Moderate Drought or worse (D1–D4), and more than 43% of the State is still rated as experiencing Extreme Drought or worse (D3-D4) by U.S. Drought Monitor.

In April 2015, Governor Jerry Brown issued an executive order requiring the State Water Resources Control Board (State Board) to implement measures to cut the State's overall water usage by 25% due to the continuing drought. In response to the executive order, the State Board adopted an emergency conservation regulation which as a general matter required California's approximately 400 urban retail water suppliers to collectively reduce potable water use 25% below 2013 levels by the end of February 2016, with usage reported to the State on a monthly basis. Water agencies were assigned various reduction goals, and SMWD's reduction goal was set at 24% initially and subsequently adjusted to 23%.

Since 2010, SMWD's potable water use has decreased through the implementation of previous Water Conservation Ordinances; and has decreased a cumulative 24.3% for the first nine recording months (June 2015 through March 2016) relative to year 2013 water usage in response to the District's conservation goal set by the State. SMWD's actual potable water use in FY 2015 was 26,910 AFY, which is 1,557 AFY less than the 28,467 AFY demand estimated for SMWD in the 2010 UWMP (5.5% less) for FY 2015.

In May 2016, the State Board adopted a new emergency regulation which, among other things, requires urban retail water suppliers to either (1) develop and report on individualized water conservation and reduction standards according to prescribed methodologies, or (2) reduce its total potable water production by the percentage identified as its conservation standard under the previous emergency regulation, subject to potential adjustments. The new regulation is currently scheduled to remain in effect until February 2017.

It is not known how long the current drought will last or when new droughts will start and end in the future. However, many of the water conservation measures already implemented and being implemented by SMWD customers such as conversion to recycled water for irrigation, turf removal, conversion to drought resistance landscapes, conversion to more efficient irrigation systems and ET-based irrigation controllers, retrofits to high efficiency clothes washers and toilets, implementation of weather-based irrigation controllers, etc. will have permanent effects on water use (reduction) in the future.

4.3 Past, Characteristic & Future Demands by Water Use Sector

SMWD has approximately 54,900 customer connections to its water distribution system. SMWD is expected to add approximately 15,200 more connections by 2035 (to approximately 70,100 connections). All connections in SMWD's service area are metered. Approximately 69% of SMWD's water demand in FY 2015 was residential; water losses totaled 4.7%; and commercial/industrial, landscape, and other users consumed the remaining water. SMWD does not currently provide any sales to agriculture, nor other agencies, saline water intrusion barriers, groundwater recharge, or conjunctive use.

Table 4.1 provides a summary of projected potable water use in the District by water use sector in five-year increments from 2020 through to 2040 as presented in the District's 2015 UWMP. The projected potable water demands for the proposed Project are included in the Table 4.1 potable water demand projections. It is estimated that total projected water demand will decrease from 26,388 AFY in 2020 to 24,695 AFY in 2040, which is a decrease of 6.42%. As discussed in this WSA, the decrease in potable water demand can be attributed to water conservation and increases in recycled water utilization.

Table 4.1
Projected Potable Water Demand by Water Use Sector

Year	Potable Water Demand by Water Use Sector (AFY)						
	Single-Family	Multi-Family	Commercial/ Industrial	Landscape	Other	Losses	Total Demand
2020	15,596	2,547	992	5,540	620	1,092	26,388
2025	15,710	2,566	999	5,581	625	1,100	26,581
2030	15,358	2,509	977	5,456	611	1,076	25,986
2035	14,595	2,384	928	5,185	581	1,022	24,695
2040	14,595	2,384	928	5,185	581	1,022	24,695

4.4 Projected District Water Demands

FY 2015 and projected domestic (potable) water and recycled water demands for the District water service area including the Project demands are shown in Table 4.2. Relative to FY 2015 District water demands, total water demands are projected to increase only by 0.8% by 2040 despite a projected population increase of 27.4% (156,949 in 2015 to 200,026 in 2040). Total potable water demands are projected to decrease by approximately 8.2% by 2040 relative to 2015 while recycled water demand is projected to increase by approximately 33.4% for the same time span. Estimated Project demands are less than 1% of the total District water service area demands.

Table 4.2
Water Demand Projections for SMWD Water Service Area (AFY)

	2015	2020	2025	2030	2035	2040
Domestic (Potable) Water						
Project	0	98	245	277	277	277
Other District WSA	26,910	26,290	26,386	25,709	24,418	24,418
Total Potable Water	26,910	26,388	26,581	25,986	24,695	24,695
Recycled Water						
Project	0	16	41	46	46	46
Other District Water Service Area	7,495	7,984	8,959	9,954	9,954	9,954
Total Recycled Water	7,495	8,000	9,000	10,000	10,000	10,000
Total District Water Service Area Water Demands	34,405	34,388	35,581	35,986	34,695	34,695
% Project Demands	0	0.3	0.8	0.9	0.9	0.9

5.0 WATER SUPPLY ANALYSIS

The District relies on a combination of imported water, urban runoff, purchased groundwater, and recycled water to meet its total water needs. The District's main source of water supply is treated imported water purchased from MWDOC via Metropolitan. In FY 2015, the District total water supply was approximately 78% imported water and 22% recycled water. No groundwater was used by the District in 2015.

By 2040, the District's water supply portfolio is projected to consist of 48% from treated imported water purchased from MWDOC; 13% from the proposed Cadiz Valley Water Conservation, Recovery and Storage Program; 13% from the proposed San Juan Basin Groundwater and Facilities Plan Update (basin recharge with a combination of stormflows, urban runoff, and recycled water to maximize the potable water supply through indirect potable reuse); and 26% from recycled water production. The District is also seeking 2,000 AFY of water transfers as an emergency supply source.

5.1 Imported Water

The District's potable supply is entirely dependent on imported water purchased from Metropolitan through MWDOC. Metropolitan's principal sources of water are the Colorado River via the Colorado River Aqueduct (CRA) and the Lake Oroville watershed in Northern California through the State Water Project (SWP). Treatment of water from Metropolitan will take place at either the Diemer Filtration Plant or the Baker Treatment Plant before being delivered to the District.

The District has connections to the Allen-McColloch Pipeline (AMP) and the East Orange County Feeder No. 2 (EOCF #2), both of which deliver potable water. The AMP is the District's primary source of potable water. It is connected to the South County Pipeline (SCP), which is jointly owned by the District and Metropolitan but operated by the District. The EOCF #2 is a pipeline jointly owned by several local agencies and Metropolitan. The District has capacity rights of 10,000 AFY in the EOCF #2. Water is also delivered through the Aufdenkamp Transmission Main to the District's Plaza Pump Station through CM-12.

The District has 9,400 AFY capacity in the Baker Treatment Plant, operated by IRWD. This plant receives untreated water from Metropolitan and treats it to drinking water standards. The water is delivered to the District through the South County Pipeline. The District also imports/purchases non-domestic water from IRWD, RMV, etc.

5.1.1 Colorado River Supplies

The CRA, which is owned and operated by Metropolitan, transports water from the Colorado River to its terminus at Lake Mathews in Riverside County. The actual amount of water per year that may be conveyed through the CRA to Metropolitan's member agencies is subject to the availability of Colorado River water for delivery.

The CRA includes supplies from the implementation of the Quantification Settlement Agreement and related agreements to transfer water from agricultural agencies to urban uses. The 2003 Quantification Settlement Agreement enabled California to implement major Colorado River water conservation and transfer programs, stabilizing water supplies for 75 years and reducing the state's demand on the river to its 4.4 MAF entitlement.

Water from the Colorado River system is available to users in California, Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming, as well as to Mexico. California is apportioned the use of 4.4 MAF of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California, and Nevada. Metropolitan has a basic entitlement of 550,000 AFY of Colorado River water, plus surplus water up to an additional 662,000 AFY when the following conditions exists (Metropolitan, 2015 UWMP, June 2016):

- Water unused by the California holders of priorities 1 through 3
- Water saved by the Palo Verde land management, crop rotation, and water supply program
- When the U.S. Secretary of the Interior makes available either one or both:
    - Surplus water
    - Colorado River water apportioned to but unused by Arizona and/or Nevada

Metropolitan has not received surplus water for a number of years. The Colorado River supply faces current and future imbalances between water supply and demand in the Colorado River Basin due to long term drought conditions. Over the past 16 years (2000-2015), there have only been three years when the Colorado River flow has been above average (Metropolitan, 2015 UWMP, June 2016).

Approximately 40 million people rely on the Colorado River system for water with 5.5 million acres of land using Colorado River water for irrigation. Climate change also has the potential to affect future supply and demand as increasing temperatures may increase evapotranspiration from vegetation along with an increase in water loss due to evaporation in reservoirs, therefore reducing the available amount of supply from the Colorado River.

According to a report issued by the United States Bureau of Reclamation, future actions must be taken to implement solutions and help resolve the imbalance between water supply and demand in areas that use Colorado River water, such as:

- Resolution of issues related to water conservation, reuse, water banking, and weather modification concepts.
- Costs, permitting, and energy availability issues relating to large-capacity augmentation projects need to be identified and investigated.
- Opportunities to advance and improve the resolution of future climate projections should be pursued.

- Consideration should be given to projects, policies, and programs that provide a wide-range of benefits to water users and healthy rivers for all users.

  (U.S. Department of the Interior Bureau of Reclamation, Colorado River Basin Water Supply and Demand Study, December 2012)

Quagga Mussel Control Program

The presence and spawning of quagga mussels in the lower Colorado River from Lake Mead through Lake Havasu poses a threat to Metropolitan and other Colorado River water users due to the potential to continuously seed water conveyance systems with mussel larvae. Chlorination is the most frequently used means to control mussel larvae entering water systems.

Metropolitan developed the Quagga Mussel Control Program (QMCP) in 2007 to address the long term introduction of mussel larvae into the CRA from the lower Colorado River which is now heavily colonized from Lake Mead through Lake Havasu. The QMCP consists of surveillance activities and control measures. Surveillance activities are conducted annually alongside regularly scheduled 2-3 week long CRA shutdowns. Control activities consist of continuous chlorination at the outlet of Copper Basin Reservoir (5 miles into the aqueduct), a mobile chlorinator for control of mussels on a quarterly basis at outlet towers and physical removal of mussels from the trash racks at Whitsett Intake Pumping Plant in Lake Havasu. Since 2007, the CRA has had scheduled 2 to 3 week-long shutdowns each year for maintenance and repairs which provide the opportunity for direct inspections for mussels and the additions benefit of desiccating quagga mussels. Recent shutdown inspections have demonstrated that the combined use of chlorine and regularly scheduled shutdowns effectively control mussel infestation in the CRA since only few and small mussels have been found during these inspections.

In addition, Metropolitan has appropriated $9.55 million to upgrade chlorination facilities in the aqueduct and at two additional locations in its system, the outlets of Lakes Mathers and Skinner. It is likely that additional upgrade costs will be incurred for these facilities. Chemical control (chlorination) at Copper Basin Reservoir, Lake Mathers, and the Lake Skinner Outlet costs approximately $3.0-3.2 million per year depending on the amount of Colorado River water conveyed through the aqueduct.

5.1.2 State Water Project Supplies

Much of the SWP water supply passes through the San Francisco-San Joaquin Bay-Delta (Bay-Delta). The SWP consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by DWR. This statewide water supply infrastructure provides water to 29 urban and agricultural agencies throughout California. More than two-thirds of California's residents obtain some of their drinking water from the Bay-Delta system.

The Bay-Delta's ecosystem is facing challenges caused by a number of factors such as agricultural runoff, predation of native fish species, urban and other discharge, changing ecosystem food supplies, and overall system operation. These and other issues in the Delta

have led to reductions in the availability and reliability of water supply deliveries from the SWP.

DWR's 2015 SWP Delivery Capability Report (July 2015) presents DWR's estimates of water deliveries from the SWP for current (2015) and future (2035) conditions. Importantly, the 2015 Report specifically addresses and accounts for various factors affecting the availability and reliability of SWP supplies, including but not limited to the potential effects of climate change, and regulatory restrictions imposed under the biological opinions issued by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

State Water Project (SWP) supplies are estimated using the 2015 SWP Delivery Capability Report distributed by DWR in July 2015. The 2015 Delivery Capability Report presents the current DWR estimate of the amount of water deliveries for current (2015) conditions and conditions 20 years in the future. These estimates incorporate restrictions on SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fisheries Service issued on December 15, 2008, and June 4, 2009, respectively. Under the 2015 Delivery Capability Report with existing conveyance and low outflow requirements scenario, the delivery estimates for the SWP for 2020 conditions as percentage of Table A amounts are 12 percent, equivalent to 257 TAF for Metropolitan, under a single dry-year (1977) condition and 51 percent, equivalent to 976 TAF for Metropolitan, under the long-term average condition.

In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. Over the last two years under the pumping restrictions of the SWP, Metropolitan has worked collaboratively with the other contractors to develop numerous voluntary Central Valley/SWP storage and transfer programs. The goal of these storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available Harvey O. Banks pumping plant capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

Metropolitan's Board approved a Delta Action Plan in June 2007 that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta action plan aims to prioritize immediate short-term actions to stabilize the Delta while an ultimate solution is selected, and mid-term steps to maintain the Delta while a long-term solution is implemented. Currently, Metropolitan is working towards addressing three basin elements: Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development.

In April 2015, the Brown Administration announced California WaterFix, as well as a separate ecosystem restoration effort called California EcoRestore. Together, the

California WaterFix and California EcoRestore will make significant contributions toward achieving the coequal goals of providing a more reliable water supply for California and protecting, restoring and enhancing the Delta ecosystem established in the Sacramento-San Joaquin Delta Reform Act of 2009. In addition to enhancing the Delta Ecosystem there are a number major actions, projects, and programs Metropolitan has undertaken to improve SWP reliability.

5.1.3 Imported Water Delivery and Conveyance

Allen-McColloch Pipeline

The Allen-McColloch Pipeline (AMP) is SMWD's primary source of domestic water in which SMWD owns specified capacity rights for the delivery of water. The AMP is connected to and provides water supply to the South County Pipeline (SCP), which is jointly owned on the basis of capacity allocation, by SMWD and Metropolitan. The SCP traverses the SMWD service area from north to south and passes through the area encompassed by The Ranch Plan. Additionally, SMWD has a connection to the AMP in Mission Viejo near the El Toro Reservoir. Metropolitan owns and operates the AMP. SMWD's AMP capacity ownership, expressed as rate of flow, is 139.19 cubic feet per second (cfs).

The Agreement for Sale and Purchase of Allen-McColloch Pipeline (Metropolitan Agreement No. 4623) among Metropolitan, MWDOC, MWDOC Water Facilities Corporation and certain other identified participants, including SMWD, dated July 1, 1994 (AMP Sale Agreement) requires Metropolitan, among other things, to meet SMWD's requests for water deliveries (subject to the availability of water from Metropolitan). The AMP Sale Agreement further requires Metropolitan to augment/increase capacity necessary to meet SMWD's projected ultimate service area water demands, which includes The Ranch Plan and other undeveloped lands within SMWD.

East Orange County Feeder No.2

The East Orange County Feeder #2 (EOCF #2) is a pipeline jointly owned by several local agencies and Metropolitan. SMWD has 14 cfs, or 10,000 AFY of capacity rights in the EOCF #2 per the agreement entitled "1970 Agreement Municipal Water District of Orange County and SMWD," dated December 4, 1970. Water is delivered via the EOCF #2 to the Aufdenkamp Transmission Main and then to SMWD's Plaza Pump Station.

The EOCF #2 is considered a back-up system to the AMP and is currently used intermittently for facilities maintenance purposes. Water supplies are deliverable through this system as necessary to augment or replace deliveries, through the AMP. SMWD's capacity rights in the EOCF #2, and connecting local facilities, enable SMWD to receive water from sources including agencies located within the Orange County Water District (OCWD) service area. The delivery and method of delivery (i.e., direct delivery or exchange) of such water is likely to occur under dry year(s) conditions or emergencies and will be subject to agreements or understandings involving MWDOC, OCWD and its member agencies and IRWD.

Baker Pipeline and Baker Water Treatment Plant

The Baker Pipeline conveys untreated water via a connection to Metropolitan's raw (untreated) water feeder system. SMWD owns capacity in the pipeline pursuant to Santiago Aqueduct Commission Joint Powers Authority Agreement dated September 1961.

The Baker Water Treatment Plant is a new drinking water treatment plant replacing the Baker Filtration Plant, which was previously nonoperational, in the City of Lake Forest. This plant will have a capacity of 28.1 mgd and is a joint regional project that will increase the local drinking water supply for the District, IRWD, MNWD, ETWD, and TCWD. The plant will treat raw, imported water from Metropolitan and ultimately it may be possible to treat local surface water from Irvine Lake using advanced microfiltration and ultraviolet light disinfection, resulting in high quality drinking water that exceeds current regulatory requirements.

Metropolitan water from the CRA and SWP, and ultimately local water from Irvine Lake can both be treated independently or as a blend at the plant. Construction is underway and is expected to be completed in October 2016. The District's plant capacity ownership equates to approximately 8.4 mgd if supply is available and capacity fully used.

5.2 Recycled Water

Recycled water is wastewater that is treated to primary, secondary, tertiary, or higher standards, which then can be used for most non-potable water purposes such as landscape irrigation, commercial and industrial processes, groundwater recharge, and other uses as specified by Title 22 requirements. The District's existing recycled water system provides a supplemental landscape irrigation supply within its service area. Recycled water provides flexibility and increases overall water supply reliability.

5.2.1 Wastewater Collection and Treatment

The District generates approximately 10.35 mgd of wastewater and provides sewer collection services for all of the City of Rancho Santa Margarita, and to portions of the cities of Mission Viejo and San Clemente, as well as unincorporated areas of south Orange County. The District's wastewater collection system includes approximately 615 miles of pipe ranging from 6 inches to 42 inches in diameter, 20 sewer lift stations, two District owned wastewater treatment plants, and three jointly owned wastewater treatment plants. Wastewater collected within the District's service area is shown in Table 5-1. The collected wastewater is treated by five existing wastewater treatment plants that include the following:

- Oso Creek Water Reclamation Plant
- 3A Treatment Plant
- J.B. Latham Treatment Plant
- Los Alisos Water Recycling Plant
- Chiquita Water Reclamation Plant

Table 5.1
Wastewater Collected Within SMWD Service Area in 2015

Wastewater Collection			Recipient of Collected Wastewater		
Name of Wastewater Collection Agency	Volume of Wastewater Collected in 2015	Name of WW Treatment Agency	Treatment Plant Name	Is WWTP Located in UWMP Area?	Is WWTP Operation Contracted to a Third Party?
SMWD	2,016	SMWD	Oso Creek Water Reclamation Plant	Yes	No
SMWD	0	SMWD	3A Treatment Plant	No	No
SMWD	2,072	SOCWA	J.B. Latham Treatment Plant	No	Yes
SMWD	784	IRWD	Los Alisos Water Recycling Plant	No	No
SMWD	6,720	Santa Margarita Water District	Chiquita Water Reclamation Plant	Yes	No
Total:	11,592				

NOTES: OCWRP and CWRP flows are from operational data from FY 2014-15. J.B. Latham flow is based on a flow monitoring survey performed in 2013. Los Alisos flows are based on the agreement the District has with IRWD. The OCWRP discharges its solids into the sewer system for treatment at J.B. Latham.

5.2.2 Recycled Water Facilities

The District operates a recycled water distribution system that consists of two District owned treatment plants, one jointly owned treatment plant, urban runoff collection, and the ability to purchase recycled water from IRWD through an existing agreement during dry year conditions. The District's recycled water program provides a diverse water supply portfolio and allows the service area to be less dependent on imported water. Recycled water within the District's service area is primarily used for irrigation and construction purposes. The recycled water is delivered to parks, medians, slopes, golf courses, and schools throughout the City of Mission Viejo, Ladera Ranch, the village of Sendero, and the Talega community within the City of San Clemente with plans to expand this service into the City of Rancho Santa Margarita.

In FY 2015, the District used approximately 7,495 AFY of recycled water within their service area. The District's recycled water demand is expected to increase significantly by 2020 and gradually increase through 2040 as shown in Table 5.2.

Table 5.2
Current and Projected Recycled Water Direct Uses in Service Area

Beneficial Use Type	Level of Treatment	2015	2020	2025	2030	2035	2040
Landscape irrigation (excludes golf courses)	Tertiary	5,866	6,340	7,300	8,400	8,400	8,550
Golf course irrigation	Tertiary	1,186	1,200	1,200	1,200	1,200	1,200
Industrial use (incl. construction/grading)	Tertiary	258	260	300	200	200	50
Other (Lake-fill water)	Tertiary	0	200	200	200	200	200

NOTES: SMWD is agency that produces (treats) the recycled water & operates the distribution system. Volumes estimated based on historical usage and future development projections.

Oso Creek Water Reclamation Plant

The District owns and operates the Oso Creek Water Reclamation Plant (OCWRP) that was constructed in 1978 and subsequently upgraded in 1989, 2004, and 2007. In addition to OCWRP with 3-mgd of tertiary treatment capacity, there is an interceptor system for low flow urban runoff in the Oso Creek, a pressurized recycled water distribution system, and a 1.3 billion gallon Upper Oso Reservoir that holds Title 22 water and urban runoff.

Recycled water from the OCWRP and urban runoff collected at the Oso Barrier pump station is pumped to the Upper Oso Reservoir that has been operational since 1979 and is located near the 241 Toll Road in the cities of Mission Viejo and Rancho Santa Margarita. The Upper Oso Reservoir is an uncovered, seasonal recycled water storage reservoir with an earthen dam designed to receive and store water during low season demands and to supplement supplies during high demand scenarios. The District conveys flows to the reservoir where MNWD owns 326 MG of capacity and the remaining 987 MG is owned by the District. The recycled water and urban runoff stored in the reservoir is used for landscape irrigation uses such as golf courses, major slopes, parks, and school grounds in the surrounding communities.

Chiquita Water Reclamation Plant

The Chiquita Water Reclamation Plant (CWRP) is owned and operated by the District with its last expansion completed in 2005. The CWRP has a secondary treatment capacity of 9 mgd. The District owns 7.8 mgd of capacity, 0.64 mgd is owned by IRWD, and the remaining 0.56 mgd is owned by TCWD. Tertiary treatment capacity at the CWRP is 6 mgd. The existing recycled water distribution system includes a non-potable water transmission main serving the Talega development and extending southerly from the CWRP in Chiquita Canyon and then extending southerly along Cristianitos Road south of Ortega Highway. The other system includes a non-domestic water transmission main extending westerly from Chiquita Canyon to Antonio Parkway and then northerly along Antonio Parkway to a reservoir in Covenant Hills.

The District is planning to expand the CWRP tertiary capacity from 6 mgd to 10 mgd by 2018. The expansion would reduce the District's dependency on imported water and provide additional recycled water for irrigation purposes.

3A Treatment Plant Expansion

The 3A Treatment Plant Tertiary Expansion Project will provide an additional 3,000 AFY of capacity for recycled water use. The expansion includes the following components: increase the reliability of the aeration system, expand and/or replacing the existing filters with more effective tertiary filters, expand the disinfection system, expand the tertiary effluent pumps, possible upsizing of the discharge pipeline where it connects to the District's recycled water distribution system, modification to various in-plant piping and electrical systems, and addition of a standby generator to maintain operation during a power outage. The expansion will increase the local water supply reliability by producing an additional 3,000 AFY of recycled water, reducing dependence on imported water.

Canada Gobernadora Multipurpose Basin

The Canada Gobernadora Multipurpose Basin project is located in the unincorporated portion of southeastern Orange County, south of the Coto de Caza community. The basin captures urban runoff and naturally treats it to meet irrigation demands in nearby communities. The project also prevents downstream erosion and sedimentation of the Gobernadora Creek and improves water quality. Approximately 200 to 750 AF is expected to be captured in the basin each year.

The basin will provide storm detention and a natural treatment system that captures and diverts flows to wetlands, a pump station, and a pipeline to deliver the urban runoff component to the Portola Reservoir in Coto de Caza, providing non-potable water storage. The Gobernadora transmission system also connects the CWRP to the Portola Reservoir for additional recycled water storage.

Los Alisos Water Recycling Plant

The District entered into the Agreement with IRWD to interconnect the two Districts' non-potable water systems so the District can purchase recycled water from the Los Alisos Water Recycling Plant, owned and operated by IRWD. Recycled water from the plant is pumped to the Upper Oso Reservoir for seasonal storage through an interconnection in Mission Viejo. The District can purchase up to 1,500 AFY from IRWD and the supply is expected to be available through 2030. Additional recycled water can be purchased on an as-available basis.

Advanced Purified Water Project

Construction of a recycled water treatment facility in the City of Mission Viejo will provide additional treatment for the District's disinfected, tertiary effluent and produce advanced purified water to maintain water levels in Lake Mission Viejo. The facility will be owned and operated by the District and has an expected completion in summer 2016.

Lake Mission Viejo is a manmade, recreational lake that also provides emergency firefighting supply. The lake has 125-acres of surface area and is subject to water loss through evaporation and subsurface seepage. Historically the lake has received water from imported potable water supplies, precipitation and groundwater.

The Advanced Purified Water (APW) facility will house a collection of treatment processes including ultrafiltration, chemical conditioning, reverse osmosis, and ultra violet light (UV) disinfection. Some of the highly treated water will be put directly into Lake Mission Viejo with the remaining amount being distributed into the District's existing recycled water system through additional piping connections. Production capacity of the APW facility is expected to be 600 AFY.

The project may also include construction of a pipeline to connect the APW facility to an existing outfall structure at the toe of the lake's dam. The outfall structure is infrequently used to drain excess water from the lake during wet weather conditions. The pipeline would convey water from the outfall to the Finisterra Pump Station with a lift pump for distribution to the recycled water system.

Future Trampas Canyon Recycled Water Seasonal Storage Reservoir

SMWD is designing the 5,000 acre-foot Trampas Canyon Seasonal Storage Reservoir to store recycled water produced by CWRP during low seasonal recycled water demand. Geotechnical and CEQA evaluation of the proposed site and 90% design of the ultimate facility has been completed. Construction of the seasonal storage reservoir will allow for year-round recycled water production from the plant, with recycled water stored during the low-demand winter months used to supply peak irrigation demands during the high-demand summer months. The proposed site is included in the approved Ranch Plan, the Habitat Conservation Plan (HCP) and the Special Area Management Plan (SAMP) environmental documentation.

Future Ortega Recycled Water Seasonal Storage Reservoir

SMWD is planning the construction of a 4,800 acre-foot seasonal storage reservoir to store recycled water produced by the CWRP during low seasonal recycled water demand. The proposed site is included in the approved Ranch Plan, the Habitat Conservation Plan (HCP) and the Special Area Management Plan (SAMP) environmental documentation.

5.3 Groundwater

5.3.1 San Juan Creek Watershed

The San Juan Creek Watershed is bounded on the west by the Pacific Ocean and otherwise by tertiary semi-permeable marine deposits. The watershed includes San Juan Basin, San Juan Creek, Oso Creek, Trabuco Creek, Canada Gobernadora and Bell Canyon. The State Water Resources Control Board (State Board) has determined San Juan Basin a surface and subsurface stream system and, therefore, is subject to State Board jurisdiction.

SMWD is a member of the San Juan Basin Authority (SJBA) a joint powers agency, formed to manage portions of the watershed, specifically including the San Juan Basin. Other member agencies include the City of San Juan Capistrano, Moulton Niguel Water District and South Coast Water District. The holds the appropriative water rights permit issued by the State Board to divert water from the San Juan Basin (Permit No. 21074), which authorizes the diversion of up to 8,026 acre-feet per year, with the ability to increase to 10,702 acre-feet of water per year upon the showing of available unappropriated water. Water produced under Permit No. 21074 is available to the SJBA member agencies pursuant to a series of agreements between the parties. As further discussed herein, for purposes of this WSA the District includes new water supplies to be developed in the basin through indirect potable reuse projects as part of its total projected water supplies.

5.3.2 Oso Creek Barrier

Since 1979, the District has operated the Oso Creek Barrier in Mission Viejo (the Barrier). The Barrier was constructed pursuant to San Diego Regional Water Quality Control Board Order 77-11. The Regional Board required operation of the Barrier to mitigate potential degradation of the lower San Juan Creek Basin that may be caused by the use of recycled water produced and distributed from the District's Oso Creek Water Reclamation Plant. The Barrier is operated during non-storm periods and produces approximately one (1) mgd when operational, yielding approximately 858 AFY on a reliable basis.

5.3.3 Lease Agreement with Rancho Mission Viejo

Rancho Mission Viejo (RMV) holds riparian water rights in the San Juan Creek watershed for its ranching, agriculture and tenants uses. RMV and the District have entered a lease agreement wherein RMV will provide non-potable water to the District to supplement the District's provision of recycled water and other non-potable water supplies to certain areas of The Ranch Plan. Under this arrangement, by 2017 RMV will provide the District up to 800 AFY of water for non-potable uses. When PA-3 is developed by 2021, an additional 400 to 1,200 AFY of water will be made available from RMV.

5.3.4 San Juan Basin Recharge

In 2014, SJBA adopted the San Juan Basin Groundwater and Facilities Plan Update which, among other things, identifies the potential to recharge the San Juan Basin with a combination of stormflows, urban runoff, and recycled water to maximize the potable water supply through indirect potable reuse (IPR). The IPR project would diversify the District's water supply portfolio and reduce reliance on imported water. Currently the District is considering participating in the project for 5,000 AFY (Santa Margarita Water District, Final Initial Study and Mitigated Negative Declaration for Califia Recycled Water Project, June 2015). The first approach of this project will include installation of rubber dams that will slow stormflows and runoff to promote infiltration and recharge of the San Juan Basin.

By 2018, the District plans to produce approximately 1,000 to 2,000 AFY of water under the IPR project. If the first approach is successful, the recharge program will use recycled water for recharge of the basin and approximately 5,000 AFY would be extracted by 2027.

The Trampas Canyon Reservoir will store the recycled water for recharge. Without the Trampas Canyon Reservoir, the maximum extraction is expected to be 1,000 to 2,000 AFY.

5.3.5 Cadiz Valley Water Conservation, Recovery and Storage Program

The District is leading the Cadiz Valley Water Conservation, Recovery and Storage Project to provide a potential new, reliable water source to the District and other southern California water agencies by managing a groundwater basin that is part of a 1,300 square mile watershed located in eastern San Bernardino County. The project would manage the aquifer and use water that would otherwise be evaporated from local dry lakes. A future phase of the project could include the ability to store water during wet years from the CRA in the Cadiz Aquifer to be used during dry years. The project is designed to provide a total of 50,000 AFY of potable water on average.

Cadiz, Inc. owns approximately 34,000 acres of land in the Cadiz and Fenner Valleys of the Mojave Desert located in San Bernardino County that is underlain by an extensive aquifer system offering natural recharge and storage capacity. Cadiz and the District entered into a public private partnership to capture and use portions of groundwater that currently are being evaporated each year when rain and melted snow from the Fenner Valley and Orange Blossom Watersheds reach the local dry lakes. In addition the Cadiz Aquifer can provide approximately 1 MAF of storage capacity that can be used to offset imported water and reduce evaporation at local surface reservoirs.

The project would be executed in two phases:

Phase I - Conservation and Recovery Component – Construction of a system to capture the aquifer's average annual recharge that would otherwise evaporate from the Bristol and Cadiz Dry Lakes. The project would construct extraction wells on the Cadiz property and a 43-mile buried pipeline within an active railroad right-of-way to convey water to Metropolitan's CRA for delivery to the District and other southern California water agencies. If the region experiences wet weather, the District has the option to decrease or forego its water delivery for that year and carry it over to another year when it may be needed. This carry-over water would be stored in the Cadiz Aquifer.

Phase II - Imported Water Storage Component – If approved, Phase II would provide storage of imported water from the Colorado River in the Cadiz aquifer system. Surplus water from the Colorado River could be conveyed to recharge basins on Cadiz owned land to percolate into the underground aquifer for storage during wet years. The water would be available for use in dry years, helping improve the region's water supply reliability.

The project underwent an extensive environmental review for two years and will need additional regulatory approvals from certain public agencies to proceed with design and construction. The District served as the lead agency for the California Environmental Quality Act (CEQA) environmental review to evaluate the potential environmental impacts associated with construction and operation of the project. A Groundwater Monitoring, Management, and Mitigation Plan was developed to ensure the Cadiz project operates as expected and protects desert resources. This plan will actively monitor critical resources in

the desert including air, water, natural springs, subsidence, and saline/fresh water movement in the groundwater basin. Groundwater and surface water resources will be monitored in the watershed and a maximum groundwater draw-down level will be established to ensure the appropriate and safe management of the groundwater basin.

The District will purchase at least 5,000 AFY of water from the Cadiz Project, which is approximately 20% of the District's potable water supply. The District has the potential to purchase an additional 10,000 AFY. If implemented, the project would diversify the District's water supply portfolio and provide water supply reliability to ensure its water demands are met regardless of the imported water supply availability.

A Groundwater Monitoring, Management, and Mitigation Plan was developed to ensure the Cadiz project operates as expected and protects desert resources. This plan will actively monitor critical resources in the desert including air, water, natural springs, subsidence, and saline/fresh water movement in the groundwater basin. The goal of the monitoring plan is to provide an early warning of potential impacts that can be addressed before reaching a significant level. Groundwater and surface water resources will be monitored in the watershed and a maximum groundwater draw-down level will be established to ensure the appropriate and safe management of the groundwater basin.

5.4 Existing and Projected SMWD Water Supply Sources

SMWD water supplies for FY 2015 are shown in Table 5.3. A summary of projected SMWD water supplies for 2020 through 2040 are shown in Table 5.4.

Table 5.3
SMWD FY 2015 Supplies

Water Supply	FY 2015	
	Actual Volume	Water Quality
San Juan Basin Groundwater	0	Drinking Water
MWDOC Purchased Imported Water	26,910	Drinking Water
Recycled Water	7,495	Recycled Water
Total	34,405	

Table 5.4
Projected SMWD Water Supplies (AFY)

Water Supply	2020	2025	2030	2035	2040
Purchased Imported Water – MWDOC	11,500	9,700	8,100	6,800	6,800
Purchased Imported Water – Baker WTP	9,400	9,400	9,400	9,400	9,400
Cadiz Recovery and Storage	5,000	5,000	5,000	5,000	5,000
Transfers – Emergency Storage	2,000	2,000	2,000	2,000	2,000
San Juan Basin IPR Groundwater	2,000	4,000	5,000	5,000	5,000
Recycled Water	8,000	9,000	10,000	10,000	10,000
Total	37,900	39,100	39,500	38,200	38,200

5.5 Water Supply Reliability Assessment

In its 2015 UWMP, Metropolitan estimated its regional water supply capability and projected demands for an average (normal) year based on an average of hydrologies for the years 1922-2012; for a single dry-year based on a repeat of the hydrology in the year 1977; and for multiple dry years based on a repeat of the hydrology of 1990-1992. A summary of the supply reliability assessment provided in Metropolitan's 2015 UWMP is shown in Table 5.5.

For each of these scenarios there is a projected surplus of supply in every forecast year. Projected supply surpluses, based on the capability of current supplies, range from 0.1% to 89% of projected demands. With the inclusion of supplies under development, Metropolitan's potential surpluses range from 7% to 110% of projected demands (See e.g., Metropolitan 2015 UWMP, pp. 2-15 to 2-17). Metropolitan's ability to provide redundant layers of water supply availability and reliability to its member agencies is predicated on the regionally developed framework between Metropolitan and its members. As part of this process, Metropolitan has developed and adopted its Water Surplus and Drought Management Plan (WSDM) to provide policy guidance and manage regional water supply actions under both surplus and drought conditions to achieve the overall goal of ensuring water supply reliability to its member agencies as set forth in Metropolitan's 2015 UWMP and 2015 Integrated Water Resources Plan.

The WSDM Plan outlines various water supply conditions and corresponding actions Metropolitan may undertake in response to moderate, serious and extreme water shortages. One example is the implementation its Water Supply Allocation Plan (WSAP), which allocates available water supplies among Metropolitan's member agencies based on factors such as impacts to retail customers, population and projected growth of particular member agencies, the availability of recycled water and other local supplies, conservation efforts, and other factors. At times when the WSAP is implemented, Metropolitan member

agencies do not lose their ability to receive any particular amount of imported water supplies, but instead Metropolitan places limits on the amount of water its member agencies can purchase without facing a surcharge.

As discussed above, in April 2015 Governor Brown declared a continuing state of drought emergency and issued Executive Order B-29-15 requiring mandatory conservation actions. In response, Metropolitan declared a Condition 3 shortage and decided to implement its WSAP with the goal of achieving a 15 percent reduction in regional deliveries to its member agencies starting on July 1, 2015.

As noted above, the WSAP did not restrict the actual amount of imported water available from Metropolitan, but instead placed limits on the amount of water its member agencies could purchase without facing a surcharge. In response to Metropolitan's WSAP, the Municipal Water District of Orange County (MWDOC) developed a drought allocation plan model for its retail agencies, including the District. For the recent WSAP, imported water deliveries to the District in excess of 29,165 acre-feet were subject to a surcharge of $113.17/AF. In May 2016, due to improved water supply conditions in Northern California, and lower demands achieved through the region's water saving efforts, Metropolitan deactivated its WSAP.

Table 5.5
Metropolitan Supply Capability and Projected Demands (AFY)

Single Dry Year MWD Supply Capability and Projected Demands (1977 Hydrology)					
Fiscal Year	**2020**	**2025**	**2030**	**2035**	**2040**
Capability of Current Supplies	2,584,000	2,686,000	2,775,000	2,905,000	2,941,000
Projected Demands	2,005,000	2,066,000	2,108,000	2,160,000	2,201,000
Projected Surplus	579,000	620,000	667,000	745,000	740,000
Projected Surplus %[(a)]	29%	30%	32%	34%	34%
Supplies under Development	63,000	100,000	316,000	358,000	398,000
Potential Surplus	642,000	720,000	983,000	1,103,000	1,138,000
Potential Surplus %[(a)]	32%	35%	47%	51%	52%
Multiple Dry Year MWD Supply Capability and Projected Demands (1990-1992 Hydrology)					
Fiscal Year	**2020**	**2025**	**2030**	**2035**	**2040**
Capability of Current Supplies	2,103,000	2,154,000	2,190,000	2,242,000	2,260,000
Projected Demands	2,001,000	2,118,000	2,171,000	2,216,000	2,258,000
Projected Surplus	102,000	36,000	19,000	26,000	2,000
Projected Surplus %[(a)]	5%	2%	1%	1%	0.1%
Supplies under Development	43,000	80,000	204,000	245,000	286,000
Potential Surplus	145,000	116,000	223,000	271,000	288,000
Potential Surplus %[(a)]	7%	5%	10%	12%	13%
Average Year MWD Supply Capability and Projected Demands (1922 - 2012 Hydrology)					
Fiscal Year	**2020**	**2025**	**2030**	**2035**	**2040**
Capability of Current Supplies	3,448,000	3,550,000	3,658,000	3,788,000	3,824,000
Projected Demands	1,860,000	1,918,000	1,959,000	2,008,000	2,047,000
Projected Surplus	1,588,000	1,632,000	1,699,000	1,780,000	1,777,000
Projected Surplus %[(a)]	85%	85%	87%	89%	87%
Supplies under Development	63,000	100,000	386,000	428,000	468,000
Potential Surplus	1,651,000	1,732,000	2,085,000	2,208,000	2,245,000
Potential Surplus %[(a)]	89%	90%	106%	110%	110%

(a) As a percentage of projected demand
Source – 2015 Metropolitan Urban Water Management Plan, June 2016

5.5.1 SMWD Normal-Year Water Supply Reliability

As set forth above, SMWD has rights to receive imported water from Metropolitan through MWDOC via connection to Metropolitan's regional distribution system. SMWD also hold infrastructure and capacity rights to receive those supplies. Also discussed above, SMWD holds various rights to recycled water, local native supplies, and supplemental supplies being developed pursuant to the Cadiz project and other water supply projects and programs in the San Juan Creek watershed.

As reflected in the District's 2015 UWMP, supply and demand projections for an average (normal) year are based on hydrology in the year 2015. This allows the District to account for recent drought conditions and various measures that were implemented in response to the drought. Normal-year water supply and demand projections for the planning period 2020 through 2040 are compared in Table 5.6. As shown, a supply surplus is projected throughout the planning period.

5.5.2 SMWD Single-Dry Year Water Supply Reliability

As reflected in the District's 2015 UWMP, the District is projected to remain 100% reliable for single-dry year demands for the period 2020 through 2040, using FY 2002 as the basis for single dry-year demand, and assuming a demand increase of 4%. This basis and demand increase were determined from historical demand and rainfall data, where the lowest precipitation in the last 30 years occurred in 2002. Single-dry year water supply and demand projections for the planning period 2020 through 2040 are compared in Table 5.7. As shown, a supply surplus is still projected throughout the planning period.

Table 5.6
Normal-Year Supply and Demand Comparison

Supply/Demand (AFY)	2020	2025	2030	2035	2040
Supply totals	37,900	39,100	39,500	38,200	38,200
Demand totals	34,388	35,581	35,986	34,695	34,695
Supply Surplus	3,512	3,519	3,514	3,505	3,505

5.5.3 SMWD Multiple-Dry Year Water Supply Reliability

As reflected in the District's 2015 UWMP the District is capable of meeting all of its projected demands during multiple dry-year scenarios for the period 2020 through 2040.

Table 5.7
Single-Dry Year Supply and Demand Comparison

Supply/Demand (AFY)	2020	2025	2030	2035	2040
Supply totals	37,900	39,100	39,500	38,200	38,200
Demand totals	35,764	37,004	37,425	36,083	36,083
Supply Surplus	2,136	2,096	2,075	2,117	2,117

Based on historical demand and rainfall data, 2012 through 2014 was determined to be the driest 3-year period for the SMWD water service area, with demands projected to increase 2% for the first year; 4% for the second year; and 9% for the third year. Multiple-dry year water supply and demand projections for the planning period 2020 through 2040 are compared in Table 5.8. As shown, a supply surplus is still projected throughout the planning period.

Table 5.8
Multiple-Dry Year Supply and Demand Comparison

Supply/Demand (AFY)		2020	2025	2030	2035	2040
First year	Supply totals	37,900	39,100	39,500	38,200	38,200
	Demand totals	35,076	36,293	36,706	35,389	35,389
	Supply Surplus	2,824	2,807	2,794	2,811	2,811
Second year	Supply totals	37,900	39,100	39,500	38,200	38,200
	Demand totals	35,764	37,004	37,425	36,083	36,083
	Supply Surplus	2,136	2,096	2,075	2,117	2,117
Third year	Supply totals	37,900	39,100	39,500	38,200	38,200
	Demand totals	37,483	38,783	39,225	37,818	37,818
	Supply Surplus	417	317	275	382	382

6.0 CONCLUSION

The Proposed Project consists of up to 1,329 affordable housing units to be developed in the Ranch Plan Planned Community located in unincorporated southern Orange County. Affordable housing dwelling units will be a mix of one, two, and three bedroom apartments, at 25 dwelling units/gross acre, with common exterior areas irrigated with non-domestic water. The 1,329 dwelling units would be distributed within six Ranch Plan Planning Areas: PA-1, PA-2, PA-3, PA-4, PA-5, and PA-8. There is one affordable housing site in each these subject planning areas, with the exception of PA-3, where 7 affordable housing sites are currently planned.

The purpose of this WSA is to evaluate whether the total projected water supplies available to the District during normal, single-dry, and multiple-dry year scenarios over the next 20-year projection are sufficient to meet the demands associated with the proposed Project in addition to the District's other existing and planned future uses. This WSA utilizes information developed and presented in the District's 2015 UWMP, which included the Project demands, to assess water supply sufficiency for the proposed Project and the District's water service area through the year 2040.

The buildout water demand for the Proposed Project is estimated to be approximately 321 AFY (potable and non-potable), which is 0.9% of the total District buildout water service area demand (34,695 AFY) estimated in the District's 2015 UWMP. Relative to FY 2015 total water demands within the District are projected to increase only by 0.8% by 2040 despite a projected population increase of 27.4%. Total potable water demands are projected to decrease by approximately 8.2% by 2040, while recycled water demands are projected to increase by approximately 33.4%.

Since 2010, the District has decreased its potable water use through various water management and conservation efforts. Recently, potable water use in the District has decreased a cumulative 24.3% from June 2015 through March 2016 relative to year 2013 water usage .The District's actual potable water use in FY 2015 was 26,910 AFY, which is 1,557 AFY or 5.5% less than the 28,467 AFY demand estimated for the District in the 2010 UWMP for FY 2015.

The District's main source of water supply is treated imported water purchased from MWDOC via the Metropolitan Water District of Southern California. In FY 2015, the District total water supply was approximately 78% imported water and 22% recycled water.

By 2040, the District's water supply portfolio is projected to be more diverse, consisting of approximately 48% from treated imported water; 13% from the proposed Cadiz Valley Water Conservation, Recovery and Storage Program; 13% from the proposed San Juan Basin Groundwater and Facilities Plan Update (basin recharge with a combination of stormflows, urban runoff, and recycled water to maximize the potable water supply through indirect potable reuse); and 26% from recycled water production. The District is also seeking 2,000 AFY of water transfers as an emergency supply source.

In its 2015 UWMP, Metropolitan concludes it can meet the projected demands of its member agencies for supplemental imported water supplies during normal, single-dry, and multiple-dry year scenarios throughout the next 20-year period and beyond. Based on the capability of current supplies, Metropolitan shows projected supply surpluses ranging from 0.1% to 89% of projected demands. With the inclusion of supplies under development, potential surpluses range from 7% to 110% of projected demands.

Based on Metropolitan's conclusions regarding the availability and reliability of imported supplies, and based on local water supply projections, the District's 2015 UWMP illustrates that the District can meet all of its projected normal-year, single-dry year, and multiple-dry year demand conditions with a supply surplus throughout the planning period 2020 through 2040.

Based on the information and analyses provided above, including the documents relied upon herein and the District current and projected water conservation and water management efforts, this WSA concludes the total projected water supplies available to the District during normal, single-dry, and multiple-dry year scenarios over the next 20-year projection ae sufficient to meet the demands associated with the proposed Project in addition to the District's other existing and planned future uses, including agricultural and manufacturing uses.

Nothing in this WSA is intended to create a right or entitlement to water service or any specific level of water service, nor does this WSA impose, expand, or limit any duty concerning the obligation of the District to provide service to its existing customers or to any future potential customers. (Water Code section 10914.) Nor does anything in this WSA prevent or otherwise interfere with the District's discretionary authority to declare a water shortage emergency in accordance with Water Code section 350 et seq. or to take any and all related and other actions authorized by law.

Responses to Comments on Program Environmental Impact Report 623

Responses to Comments on Program Environmental Impact Report 623

Orange County Affordable Housing Implementation Plan—Ranch Plan

IP# 15-157

SCH No. 2015051062

Prepared for | County of Orange
300 N. Flower Street
Santa Ana, California 92702-4048

Prepared by | BonTerra Psomas
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707

October 2016

Draft EIR Circulated: July 15, 2016
Final EIR Certified: November 8, 2016

Responses to Comments on Program Environmental Impact Report 623 Orange County Affordable Housing Implementation Plan—Ranch Plan

IP# 15-157

State Clearinghouse Number 2015051062

Prepared for:
COUNTY OF ORANGE
OC Public Works
300 North Flower Street
Santa Ana, California 92702-4048
Contact: Rose Fistrovic

October 2016

TABLE OF CONTENTS

ATTACHMENTS

1.0 INTRODUCTION AND SUMMARY

1.1 INTRODUCTION

The purpose of this document is to present public comments and responses to those comments received on Draft Program Environmental Impact Report (PEIR) 623 for the Orange County Affordable Housing Implementation Plan—Ranch Plan (State Clearinghouse Number 2015051062). The project site is located in unincorporated Orange County. The County of Orange is the Lead Agency on the project.

The Draft PEIR was circulated for a 45-day public review and comment period beginning July 15, 2016, and ending August 29, 2016. Written responses have been prepared to all comments received during the comment period and are included in this document.

As required by Section 15132(d) of the California Environmental Quality Act (CEQA) Guidelines, this Final PEIR responds to comments regarding "significant environmental points raised in the review and consultation process". This Response to Comments document provides revisions and clarifications to the Draft PEIR, as appropriate. In keeping with the requirement of Section 21092.5 of the *California Public Resources Code,* which requires the lead agency to provide a copy of the written response to each public agency that commented on the Draft PEIR, the County of Orange will send copies of the Responses to Comments not only to the public agencies that commented, but also to all parties that commented on the Draft PEIR. This will be done at least ten days prior to the Board of Supervisors certifying the Final PEIR.

The Final PEIR, which has been prepared electronically, consists of four folders. This includes (1) the Draft PEIR; (2) the Technical Appendices; (3) this Responses to Comments document; and (4) the Mitigation Monitoring and Reporting Program. In addition, the Final PEIR includes the related staff reports and other information contained in the administrative record.

The Responses to Comments document is divided into three sections. Section 1 is this introduction. Section 2 provides a list of commenters and copies of the letters received with each comment bracketed and numbered, followed by the responses to the comments. Section 3 provides all the changes made to the Draft PEIR as a result of the responses to comments (note, these changes are also identified in the responses). The changes to the PEIR are shown in *red italics* text and deletions are shown in ~~red strikethrough~~ text. In addition, Attachment A provides some supporting documentation to one of the responses.

None of the comments received identify significant environmental points. Additionally, the clarifications and revisions to the PEIR do not reflect a substantial change to the Project description or identify a new impact or intensification of an impact already identified in the Draft PEIR.

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2.0 RESPONSES TO COMMENTS

2.1 LIST OF COMMENTERS

The following is the listing of comments received on the PEIR. After the name of each commenter is a notation in parentheses. This notation is used to index the responses provided later in this section. The comment letters are also provided in this section.

Commenter	Date of Correspondence	Page for Comment	Page for Response
State Agencies			
California Highway Patrol (CHP)	August 24, 2016	2-2	2-3
Governor's Office of Planning and Research (OPR)	August 30, 2016	2-4	2-7
California Department of Transportation (CT)	August 31, 2016	2-8	2-11
Local Agencies			
Orange County Fire Authority (OCFA)	July 28, 2016	2-29	2-30
Orange County Transportation Authority (OCTA)	August 29, 2016	2-33	2-36
Orange County Transportation Authority (OCTA)[a]	November 8, 2016	2-35	2-36
Companies			
Rancho Mission Viejo (RMV)	August 29, 2016	2-39	2-41

[a] Comment provided by OCTA on the preliminary Responses to Comments document distributed before the Board of Supervisors' meeting on the Project. The requested revisions have been made to the response to the original OCTA-5 comment, which begin on page 2-37. This also changes the errata information, which is provided on page 3-6.

2.2 COMMENTS AND RESPONSES RECEIVED ON DRAFT PEIR 623

The following section contains the comment letters received for the Draft PEIR with each comment bracketed and numbered. Immediately following the comment letter are the responses to the comments.

State of California—Transportation Agency EDMUND G. BROWN Jr., Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
Capistrano Area
32951 Camino Capistrano
(949) 487-4000
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

clear 8/29/16 E

Governor's Office of Planning & Research

AUG 29 2016

STATE CLEARINGHOUSE

August 24, 2016

File No.: 690.13303.13572

State Clearing House
1400 Tenth Street, Room 121
Sacramento, CA. 95814

The Capistrano Area Office of the California Highway Patrol recently received a "Notice of Completion" Environmental Impact Report for the proposed Orange County Affordable Housing Implementation Plan-Ranch Plan, State Clearing House (SCH) #2015051062. After our review, we have concerns with the potential impact this project could have on traffic congestion.

Our concerns relate to the proposed construction of additional dwelling units within the Rancho Mission Viejo Planned Community project. The project is located in close proximity to State Route 74 (Ortega Highway), and Antonio Parkway. State Route 74 is a major arterial route that connects Riverside County with Interstate 5 in Orange County. Antonio Parkway is a major arterial highway within the unincorporated community of Ladera Ranch. State Route 74 and Antonio Parkway will be the main route of travel to Interstate 5 for the future residents within this project. Currently, State Route 74 has a chokepoint at the eastern edge of the San Juan Capistrano City Limits. The roadway narrows from two traffic lanes to one traffic lane in each direction. This project could have a negative impact on The Capistrano Area's operations due to increased traffic congestion, which could lead to a potential increase in traffic collisions within our jurisdiction. CHP-1

If you have any questions regarding these concerns, please contact Lieutenant D. Joslin at (949) 487-4000

Sincerely,

J. FONSECA, Captain
Commander

cc: Border Division
Special Projects Section

Safety, Service, and Security *An Internationally Accredited Agency*

Response to the California Highway Patrol
Comment Letter Dated August 24, 2016

CHP-1 Your concern regarding increased traffic on the portion of Ortega Highway (State Route [SR] 74) in the City of San Juan Capistrano that narrows to two lanes (one lane in each direction) is acknowledged. As discussed in Section 4.9, Transportation/Traffic, the Project is expected to have minimal effect on this segment of roadway. The Intersection Capacity Utilization (ICU) values and Highway Capacity Manual (HCM) delay times for intersections on each side of the narrow section show minimal changes when compared to the No Project Alternative (See Tables 4.9-7 through 4.9-18).

It should also be noted that roadway improvements are planned for this area. As shown on Exhibits 4.9-3 and 4.9-4, the 2035 Circulation System, with and without the SR-241 extension, assume the two lane segment of SR-74 will be widened to four lanes. It is also listed in Table 4.9-6, Background Circulation System Improvements. Since the traffic analysis in the Program Environmental Impact Report (PEIR) evaluates the Alternative Baseline and the 2035 timeframes this improvement is identified as being part of the 2035 circulation network. However, this is not to imply that the improvement will not be constructed until 2035, rather just a precise timeframe for the improvements has not been established. The California Department of Transportation (Caltrans) has completed the CEQA documentation for the widening of the two-lane segment of Ortega Highway through the City of San Juan Capistrano.[1] Caltrans[2] is working with the Orange County Transportation Authority (OCTA) and the City of San Juan Capistrano to identify funding sources for the improvements. Anticipated funding sources include, but are not limited to, the Measure M2 Program and the South County Road Improvement Program (SCRIP). Pursuant to Standard Condition 4.9-1, the Project would contribute to SCRIP.

Additionally, Rancho Mission Viejo (RMV) is currently grading Los Patrones Parkway on the eastern edge of Planning Area 2, which will provide an additional north-south roadway within the Ranch Plan compared to the current circulation network. As discussed in Section 2.6.3 (page 2-16) of the Draft PEIR, this roadway will extend from Oso Parkway at the intersections of the on- and off-ramps from the existing SR-241 south to Cow Camp Road. Grading for the roadway has been initiated and the roadway is expected to be open in approximately 2018.

[1] California Department of Transportation (Caltrans). 2016 (September 6). Personal communication. Phone call between S. Deshpande (Caltrans, District 12) and K. Brady (BonTerra Psomas).

[2] California Department of Transportation (Caltrans). 2016 (September 28). Personal communication. Phone call between S. Deshpande (Caltrans, District 12) and K. Brady (BonTerra Psomas).

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

August 30, 2016

Bea Bea Jimenez
Orange County
300 N. Flower Street
Santa Ana, CA 92703

Subject: Orange County Affordable Housing Implementation Program--Ranch Plan (IP# 15-157)
SCH#: 2015051062

Dear Bea Bea Jimenez:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 29, 2016, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

OPR-1

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH#	**2015051062**
Project Title	Orange County Affordable Housing Implementation Program--Ranch Plan (IP# 15-157)
Lead Agency	Orange County
Type	**EIR** Draft EIR
Description	As part of the overall approval process for the Ranch Plan Planned Community, an Affordable Housing Implementation Agreement (AHIA) was which requires the landowner to provide the County with developable land at various sites within the Ranch Plan Planned Community ranging in size from 2 to 10 acres for rental units for low and very-low income households. The Program EIR will address three development alternatives providing a range in the number of units from 555 units to 1,110 units.

Lead Agency Contact

Name	Bea Bea Jimenez		
Agency	Orange County		
Phone	714-667-8852	***Fax***	
email			
Address	300 N. Flower Street		
City	Santa Ana	***State*** CA	***Zip*** 92703

Project Location

County	Orange		
City	Orange		
Region			
Lat / Long			
Cross Streets	Orange hwy and Antonio Parkway within the Ranch Plan Planned Community		
Parcel No.	multiple		
Township	***Range***	***Section***	***Base***

Proximity to:

Highways	SR 74, 241
Airports	
Railways	
Waterways	San Juan Creek, Cristianitos Creek
Schools	San Juan Hills HS
Land Use	Z: Planned Community GP: Residential

Project Issues	Air Quality; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects; Other Issues
Reviewing Agencies	Resources Agency; Department of Fish and Wildlife, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 12; Regional Water Quality Control Board, Region 9; Native American Heritage Commission; Department of Housing and Community Development

Date Received 07/15/2016 ***Start of Review*** 07/15/2016 ***End of Review*** 08/29/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

State of California—Transportation Agency EDMUND G. BROWN Jr., Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
Capistrano Area
32951 Camino Capistrano
(949) 487-4000
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

clear 8/29/16 E

Governor's Office of Planning & Research

AUG 29 2016

STATE CLEARINGHOUSE

August 24, 2016

File No.: 690.13303.13572

State Clearing House
1400 Tenth Street, Room 121
Sacramento, CA. 95814

The Capistrano Area Office of the California Highway Patrol recently received a "Notice of Completion" Environmental Impact Report for the proposed Orange County Affordable Housing Implementation Plan-Ranch Plan, State Clearing House (SCH) #2015051062. After our review, we have concerns with the potential impact this project could have on traffic congestion.

Our concerns relate to the proposed construction of additional dwelling units within the Rancho Mission Viejo Planned Community project. The project is located in close proximity to State Route 74 (Ortega Highway), and Antonio Parkway. State Route 74 is a major arterial route that connects Riverside County with Interstate 5 in Orange County. Antonio Parkway is a major arterial highway within the unincorporated community of Ladera Ranch. State Route 74 and Antonio Parkway will be the main route of travel to Interstate 5 for the future residents within this project. Currently, State Route 74 has a chokepoint at the eastern edge of the San Juan Capistrano City Limits. The roadway narrows from two traffic lanes to one traffic lane in each direction. This project could have a negative impact on The Capistrano Area's operations due to increased traffic congestion, which could lead to a potential increase in traffic collisions within our jurisdiction.

If you have any questions regarding these concerns, please contact Lieutenant D. Joslin at (949) 487-4000

Sincerely,

J. FONSECA, Captain
Commander

cc: Border Division
Special Projects Section

Safety, Service, and Security *An Internationally Accredited Agency*

Response to the Governor's Office of Planning and Research
Comment Letter Dated August 30, 2016

OPR-1 The comment the letter identified the agencies that received the document through the State Clearinghouse and transmitted the letter submitted by the California Highway Patrol (CHP). The CHP letter has been responded to above. No further response to this comment letter is required.

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3347 MICHELSON DRIVE, SUITE 100
IRVINE, CA 92612-8894
PHONE (949) 724-2086
FAX (949) 724-2592
TTY 711
www.dot.ca.gov

Serious drought.
Help save water!

August 31, 2016

File: IGR/CEQA
SCH#: 2015051062
12-ORA-2016-00078
SR-5, 73, 74, 241

Ms. Bea Bea Jimenez
Orange County Public Works/Planning
300 N. Flower Street
Santa Ana, CA 92703

Ms. Jimenez:

Thank you for including the California Department of Transportation (Caltrans) in the review of the Draft Program Environmental Impact Report (Draft PEIR) for the proposed Addendum Two to the Orange County Affordable Housing Implementation Program (IP #15-157) for the Ranch Plan Planned Community (SCH #2015051062). The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities of infill, conservation, and efficient development. To ensure a safe, efficient, and reliable transportation system, we encourage early consultation and coordination with local jurisdictions and project proponents on all development projects that utilize the multimodal transportation network.

As part of the overall approval process for the Ranch Plan Planned Community/Rancho Mission Viejo (RMV), the Affordable Housing Implementation Agreement (AHIA) "requires that RMV provide the County with various sites that are between 2 and 10 acres in size, for a total of 60 gross acres of property (the 'Dedicated Lands'), for the development of affordable housing for households qualifying as low or very-low income households, as defined in the Orange County Housing Element. The Affordable Housing developed on property provided pursuant to the AHIA is not counted against the 14,000 dwelling units approved as part of the Ranch Plan; however, no additional acreage would be devoted to development. The Project would be within the graded development areas of the Ranch Plan." The previously approved Addendum One of the AHIA for the Ranch Plan authorized development for affordable housing in Planning Areas 1 and 2 of the Ranch Plan. RMV is subject to a remaining Dedicated Lands obligation of 44.4 gross acres (credits) required under the AHIA. The proposed Addendum Two to the AHIA Draft PEIR addresses three development scenarios (alternatives allowing between 555 and 1,110 dwelling units) for the potential environmental impacts associated with the development of affordable housing in Planning Areas 3, 4, 5, and 8 of the Ranch Plan. This proposed project is located in unincorporated southern Orange County in proximity to Interstate 5 (I-5), Ortega Highway/State Route 74 (SR-74), SR-241, and SR-73. Caltrans District 12 is a commenting agency at this time, and has the following comments:

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Ms. Jiminez, Orange County Public Works
August 31, 2016
Page 2

- Figure 2-1 & 2-2 (Project Trip Distribution exhibits) of the Traffic Report assumes that only 1% of the plan (Alternatives 1, 2, 3) traffic will be on Ortega Highway east of Antonio Parkway/La Pata Avenue. Caltrans current traffic volumes (2014) in the following table below for Ortega Highway (SR-74) shows that the volumes goes down 1/3 after Conrock Entrance, east of the development. Although this shows it's only 35% of the volumes of what it was at Conrock Entrance, it is more than 1% at this time. 2015 traffic volumes have remained around the same percentage.

		Back AADT	Ahead AADT
PM R2.154	Ranch Viejo Way/Santa Margarita	41600	37200
PM 5.242	Conrock Entrance	31300	31300
PM 8.13	Trough Creek Bridge	11200	11700
PM 9.25	Lucas Canyon Road	11700	10200
PM 16.599	Orange/Riverside County Line	10600	
http://www.dot.ca.gov/trafficops/census/docs/2014_aadt_volumes.pdf			

- The Trip Distribution patterns for the affordable housing project land uses were determined based on the South County Sub-Area Model, Version 3.4 (SCSAM 3.4)/OCTAM, and "assumes full development of the Ranch Plan Planned Community, including the land uses and roadway infrastructure on the Ranch Plan Planned Community site as well as South County Roadway Improvement Program (SCRIP) improvements that are planned." The 1% trip distribution on Ortega Highway east of Antonio Parkway/La Pata Avenue assumes everyone will only be going westbound, and no one will be going eastbound on Ortega Highway. Since the project will affect both directions, further discussion about the eastbound direction of Ortega Highway (SR-74) is needed. Please clarify.

CT-1

- There is a recent Caltrans/State emphasis toward reduction of Vehicle Miles Traveled (VMT) and increased transit use. Although the Orange County Affordable Housing Implementation Program for the Ranch Plan Planned Community has no significant direct or cumulative impacts on State transportation facilities, Caltrans recommends that the project coordinate with other community strategies to reduce VMT such as the provision of a community shuttle service, park and ride facilities, bicycle access, or other enhancements which can improve mobility and reduce VMT on the local and regional transportation system. Please continue to coordinate with OCTA to discuss/determine opportunities to enable residents in this community to choose alternative modes of transportation.

CT-2

- Any hauling of materials should not occur during A.M. and P.M. peak periods of travel on State facilities during construction of the proposed project. All vehicle loads should be covered so that materials do not blow over or onto the Caltrans Right-of-Way (R/W).

CT-3

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Ms. Jiminez, Orange County Public Works
August 31, 2016
Page 3

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Leila Carver at (949) 756-7827.

Sincerely,

MAUREEN EL HARAKE
Branch Chief, Regional-Community-Transit Planning
District 12

c: OPR State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Response to the California Department of Transportation
Comment Letter Dated August 31, 2016

CT-1 Figures 2-1 and 2-2 of the traffic study prepared for Program Environmental Impact Report (PEIR) 623 (Appendix E) depict that one percent of Project trip distribution would be on Ortega Highway east of Cow Camp Road. The percentage of Project traffic on the segment of Ortega Highway just east of Antonio Parkway/La Pata Avenue is not shown on the figures, but is accounted for in the traffic forecasts used for the analysis. Data from the traffic model used to prepare the traffic study indicates that the percentage of Project traffic on Ortega Highway just east of Antonio Parkway/La Pata Avenue is approximately two percent.

As indicated on page 4.9-3 of the Draft PEIR, traffic forecasts for the study were prepared using the South County Sub-Area Model, Version 3.4 (SCSAM 3.4) in combination with recent traffic projections prepared for the cities of Mission Viejo, San Juan Capistrano, and San Clemente. The SCSAM 3.4 traffic model is derived from the Orange County Transportation Analysis Model, Version 3.4 (OCTAM 3.4), which is maintained by the Orange County Transportation Authority (OCTA) and has been developed according to OCTA's Orange County sub-area traffic modeling guidelines. The OCTA has certified the SCSAM traffic model as being consistent with the OCTAM regional model.

The Year 2014 traffic counts referenced in the comment are not applicable to the distribution of future Project or Ranch Plan traffic. The traffic counts simply indicate the volume of traffic on the roadway at certain locations and do not convey information about the origin or destination of those vehicles, which would be needed to draw a conclusion regarding Project distribution. Historically, the trips on Ortega Highway east of the future Cow Camp Road connection include a large number of inter-county trips (travel between Orange and Riverside counties). The development of the Ranch Plan and the Project will be a new origin and destination for trips and will alter the distribution of traffic trips. Additionally, unlike today, the long-range (2035) analysis in Draft PEIR 623 assumes the completion of Cow Camp Road, which will be a major east-west facility that will attract the trips internal to the Ranch Plan boundary. Cow Camp Road will be a multi-lane roadway that meets current design guidelines. By design, the limited number of access points to Ortega Highway from the Ranch Plan Planned Community will restrict the number of Ranch-related trips on Ortega Highway.

The figures in the traffic study (Appendix E to the PEIR), identify the number of trips on Ortega Highway east of Antonio Parkway. Specifically,

- Figure 3-2 identifies that for existing conditions, there are 17,000 average daily trips (ADT) on Ortega Highway east of Antonio Parkway and approximately 14,000 ADT in the vicinity of the future extension of Cow Camp Road.

- Figures 4-1 through Figure 4-4 identifies 14,000 ADT on Ortega Highway east of Antonio Parkway, approximately 10,000 ADT west of the future

extension of Cow Camp Road, and 15,000 ADT east of the future extension of Cow Camp Road for the Alternative Baseline condition. The same volumes are projected for the No Project and Scenarios 1 through 3.[3] This would indicate that some of the trips on Ortega Highway will be utilizing Cow Camp Road.

- Figure 4-5 through Figure 4-8 identifies 17,000 ADT on Ortega Highway east of Antonio Parkway, approximately 11,000 ADT west of the future extension of Cow Camp Road, and 20,000 ADT east of the future extension of Cow Camp Road for the 2035 cumulative, without State Route (SR)-241 extension condition. The same volumes are projected for the No Project and Scenarios 1 through 3. As indicated above, this would indicate that some of the trips on Ortega Highway will be utilizing Cow Camp Road.

- Figure 4-9 through Figure 4-12 identifies 16,000 ADT on Ortega Highway east of Antonio Parkway, approximately 11,000 ADT west of the future extension of Cow Camp Road, and 19,000 ADT east of the future extension of Cow Camp Road for the 2035 cumulative, with the SR-241 extension condition. The same volumes are projected for of the No Project and Scenarios 1 through 3. Similar to the previously discussed evaluations, this would indicate that some of the trips on Ortega Highway will be utilizing Cow Camp Road.

This analysis demonstrates that overall traffic volumes on Ortega Highway are projected to slightly increase by 2025; however, they would become a lower percentage of the overall number of trips on the roadway network in this area. A substantial portion of the overall growth in the area will be related to the development of the Ranch Plan. To facilitate the reader's review of this response, the figures from the traffic report have been duplicated and are provided at the end of this response to Caltrans' comments.

CT-2 The Affordable Housing units that would be developed as part of the Project would be completely integrated within the overall Ranch Plan Planned Community. As such, these units will have full access to the broad range of vehicle miles traveled (VMT) reduction strategies that are being implemented by the Ranch Plan. As part of the Greenhouse Gas (GHG) Emissions discussion, Draft PEIR 623 provides a discussion of the RanchRide program, which is aimed to reduce mobile emissions. Though no trip or GHG emission reductions were taken, Section 4.2 of Draft PEIR 623 indicates that the Orange County Transportation Authority (OCTA) approved a grant to provide funding for a program that would serve Ladera Ranch and the Ranch Plan as part of the Community-Based Transit/Circulators Program. This program is funded by OCTA's Measure M2 Project V program. The service will be administered by Rancho Transportation Management Association (TMA) under the service trademark of RanchRide through a public-private partnership with the County of Orange. A pilot program was operated in 2015 to

[3] The traffic study identified the Project Scenarios as Alternatives. For consistency with the nomenclature in the Draft PEIR, this discussion uses the term "scenario" even though the figure uses "alternative".

clarify the needs for the communities, emphasizing a dynamic level of service. The OCTA Measure M2 Project V provides funding for an initial seven years, beginning in the fourth quarter of 2016, extending through 2023. Funding for RanchRide is also derived from a portion of the homeowners' association fees collected by the Rancho Mission Viejo Master Maintenance Corporation. As the program develops, more information schedules and number of boardings will become available.

CT-3 Your concern regarding the hauling of construction materials on State facilities is acknowledged. Suppliers would be responsible for complying with all applicable Caltrans requirements regarding the hauling of construction materials.

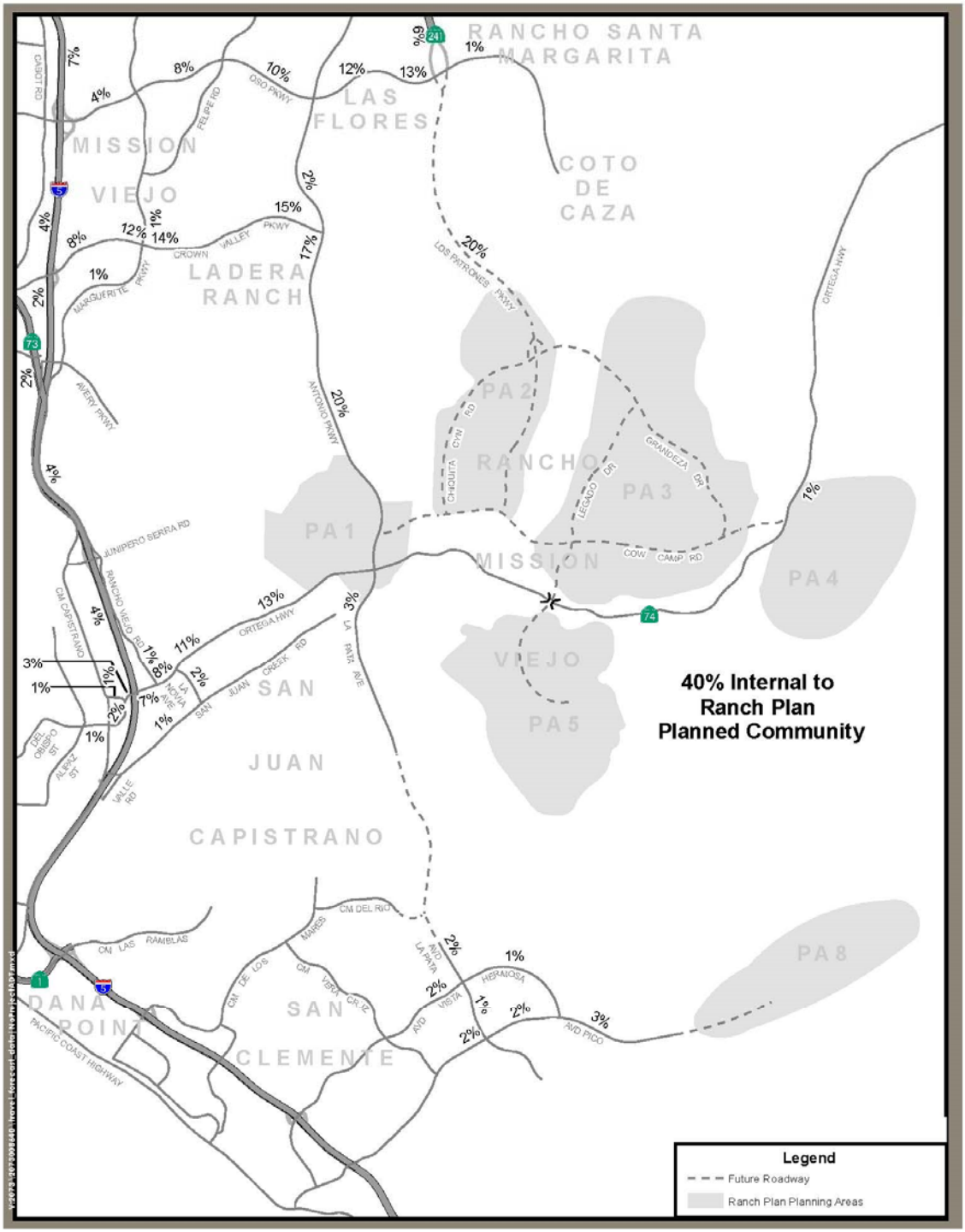


Figure 2-1
Affordable Housing Project Trip Distribution Pattern Without SR-241 Extension
2.7

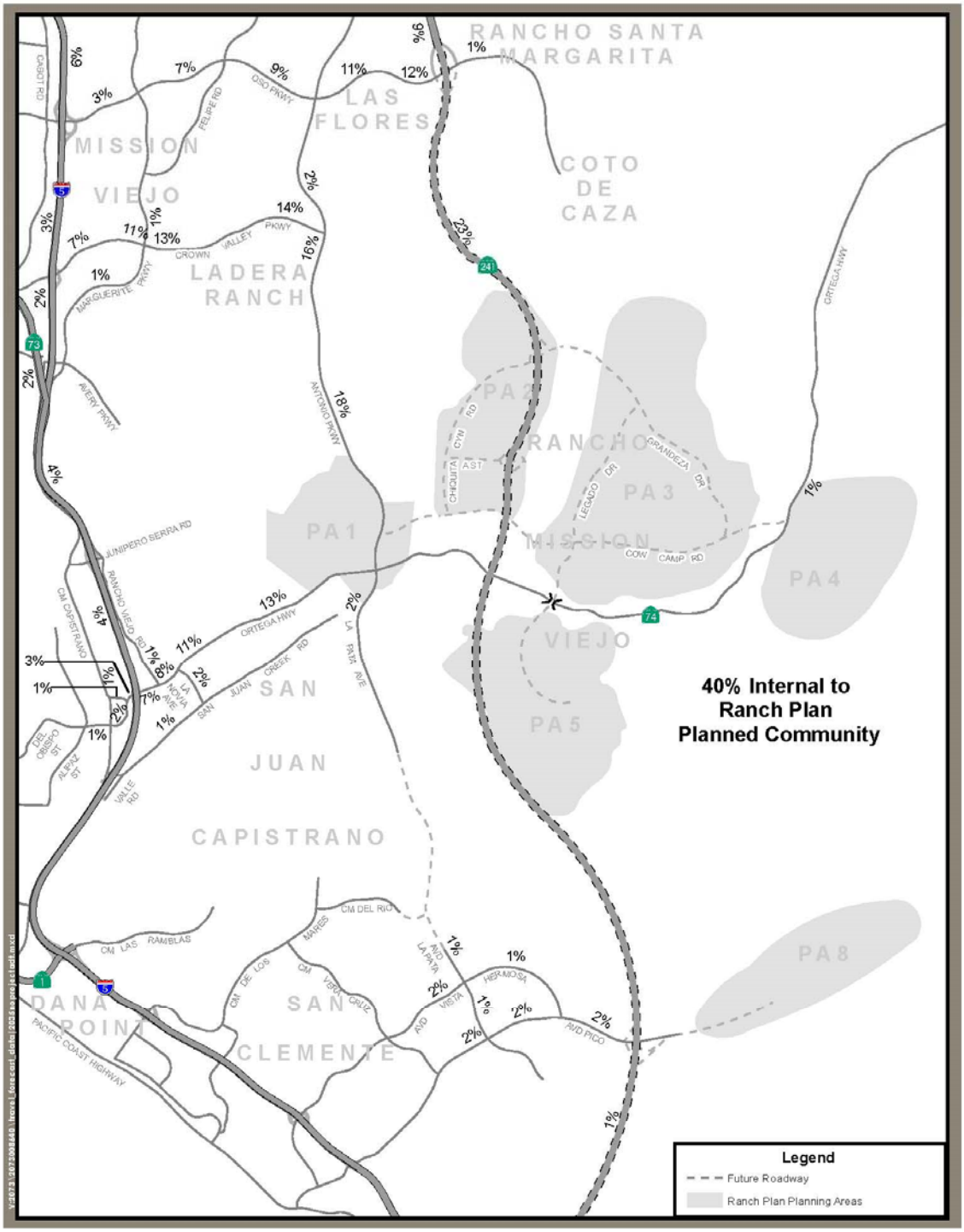
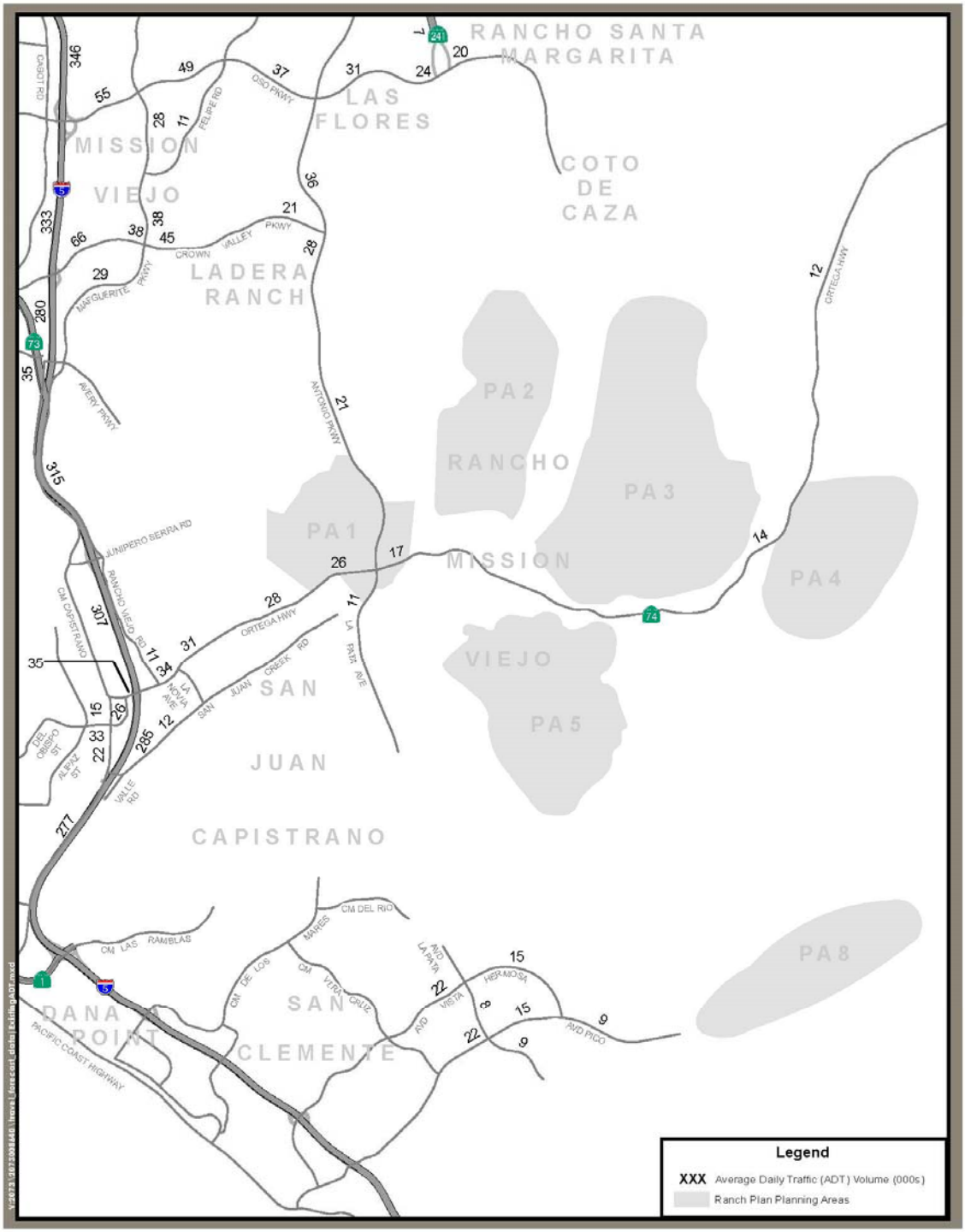
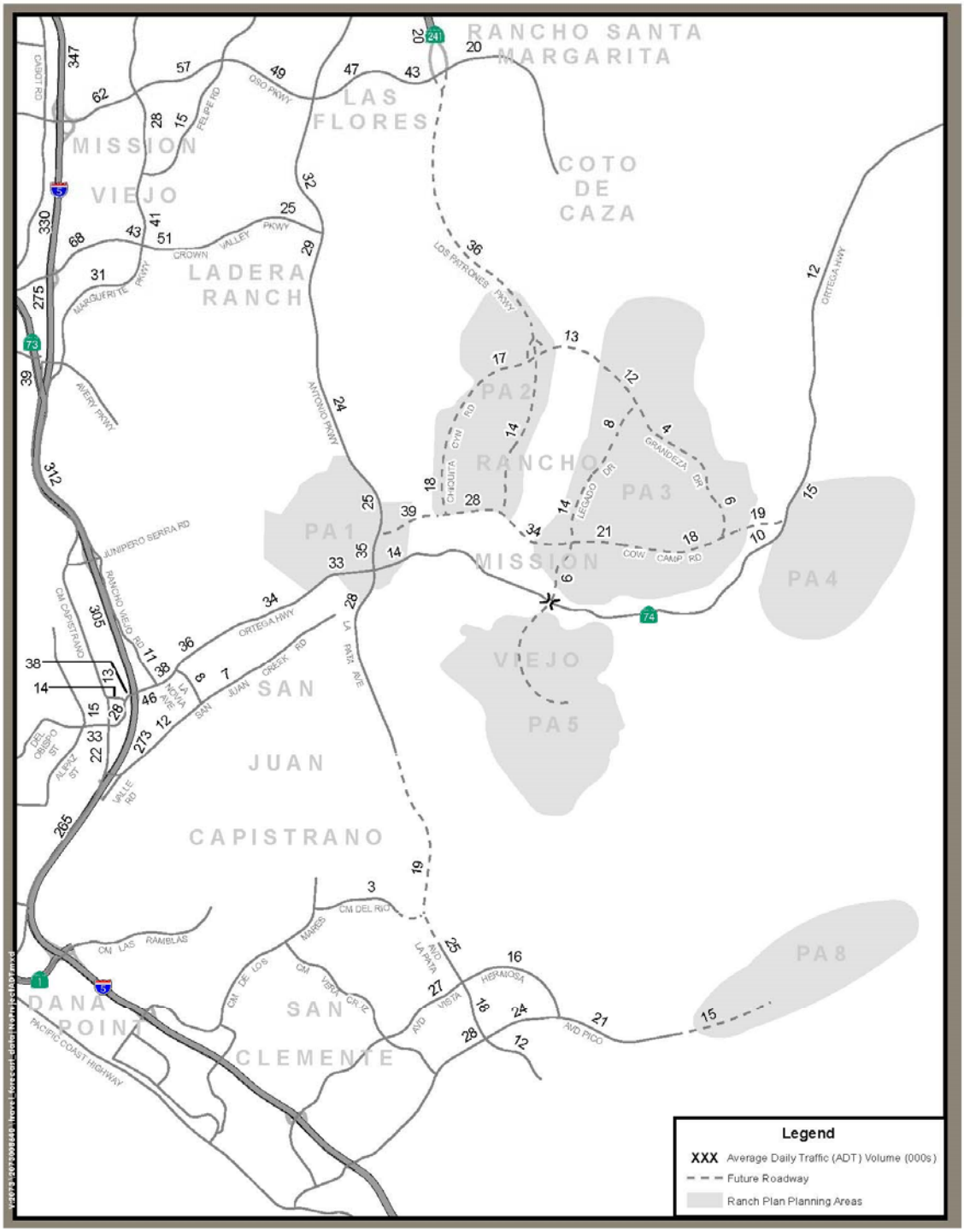


Figure 2-2
Affordable Housing Project Trip Distribution Pattern With SR-241 Extension
2.8



Stantec

Figure 3-2
Existing ADT Volumes (000s)
3.3



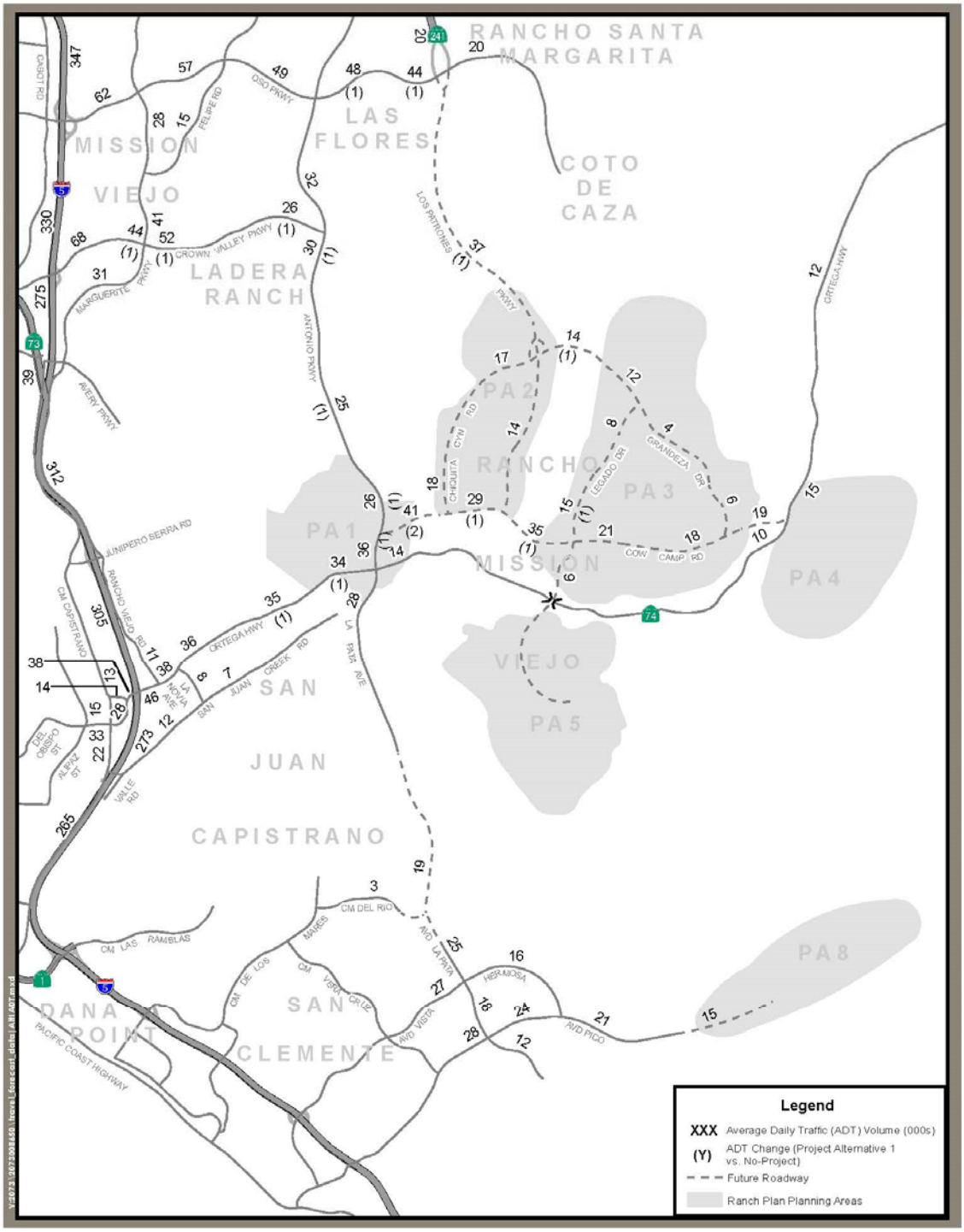
Stantec

N

Figure 4-1

Alternative Existing Baseline ADT Volumes (000s) - No Project

4.4



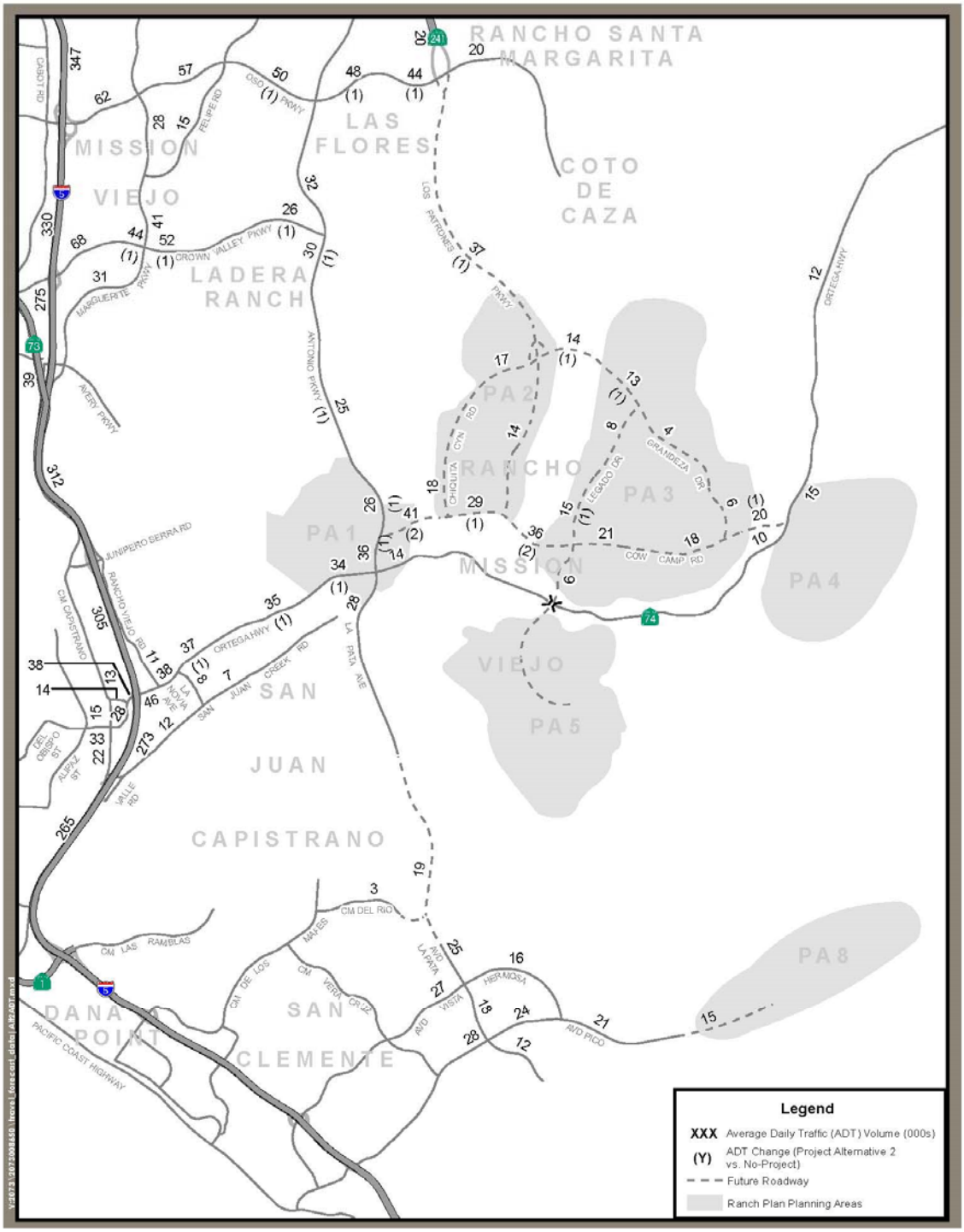
Stantec

N

Figure 4-2

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 1

4.5



Stantec

Figure 4-3

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 2

4.6

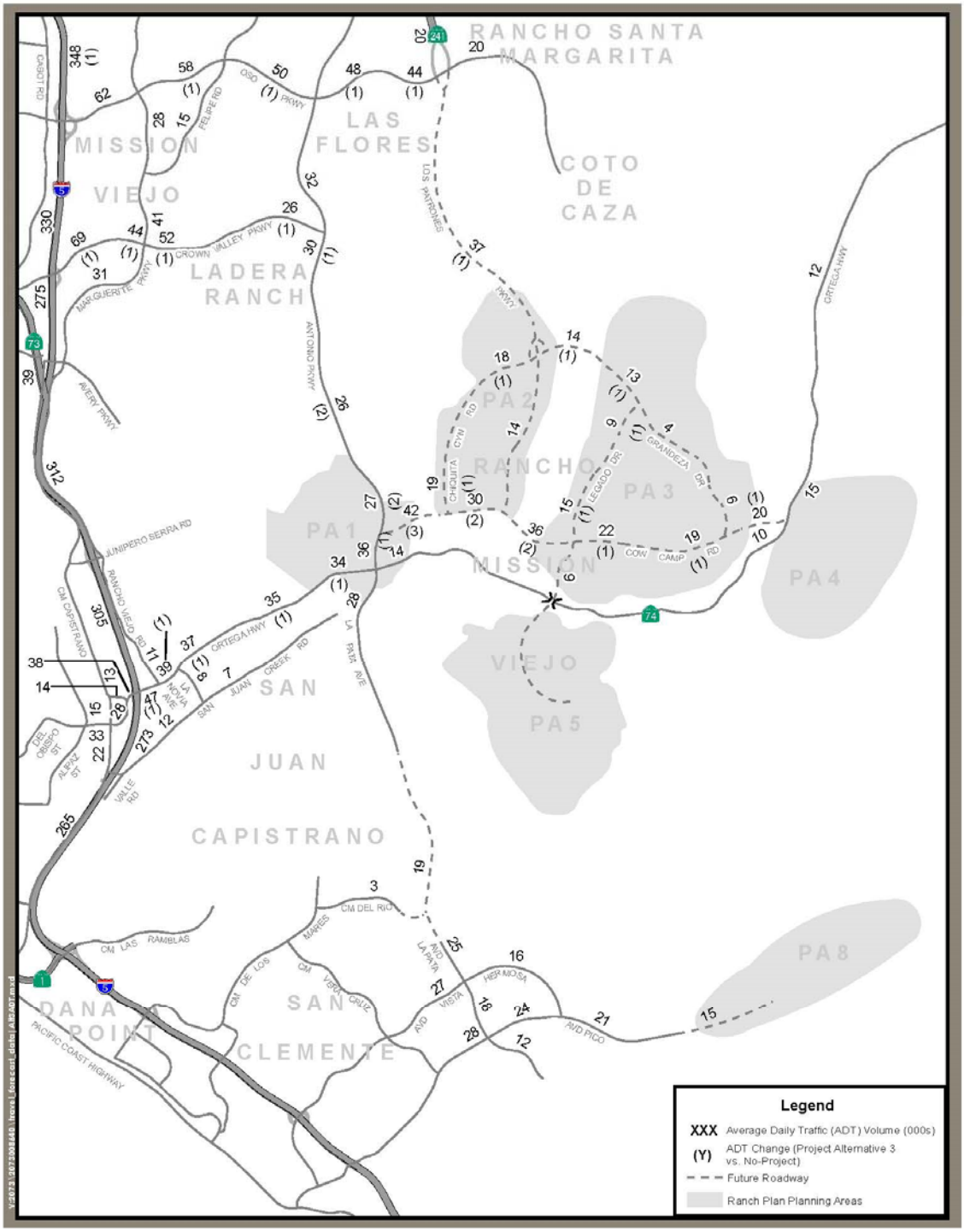
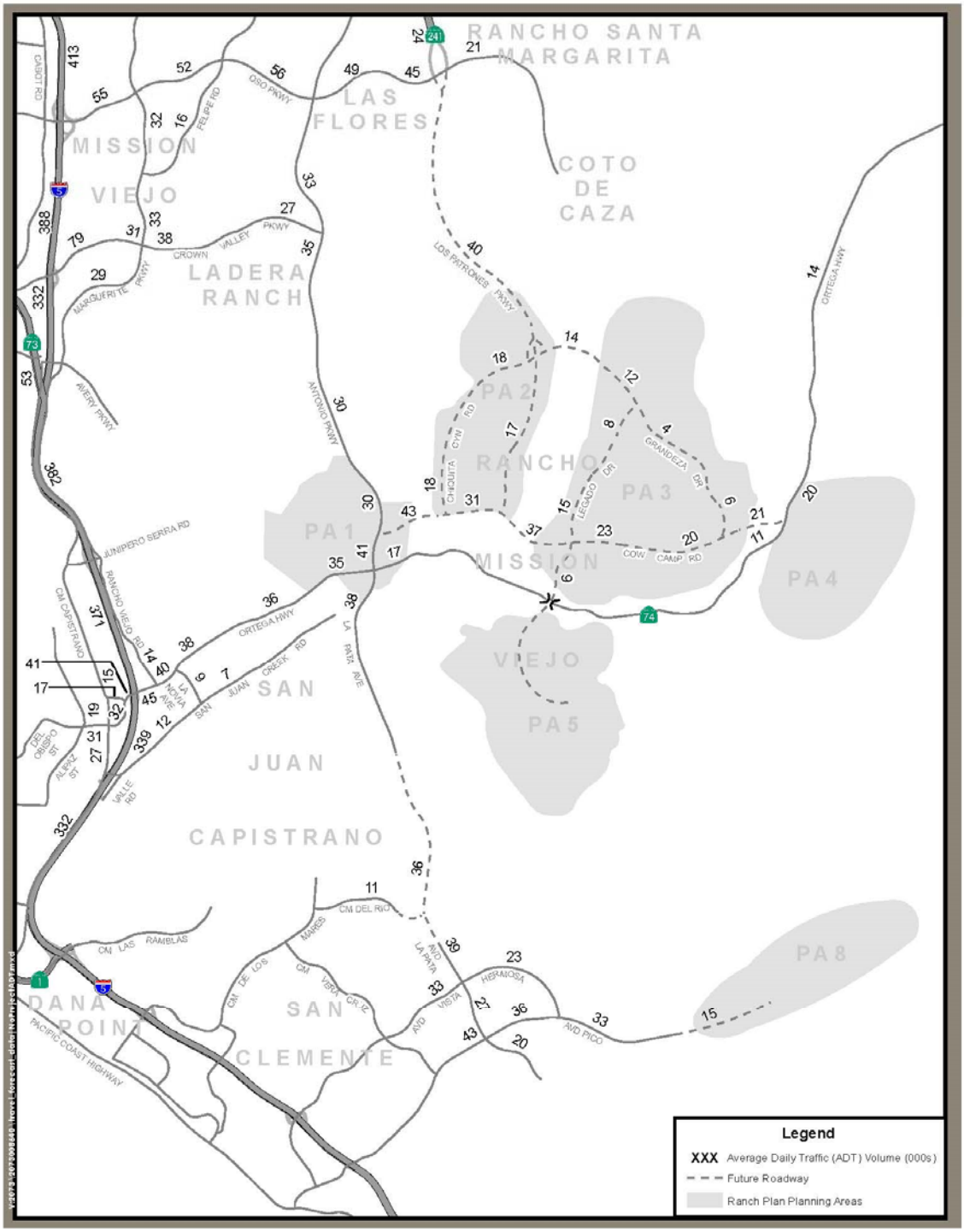


Figure 4-4

Stantec

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 3

4.7

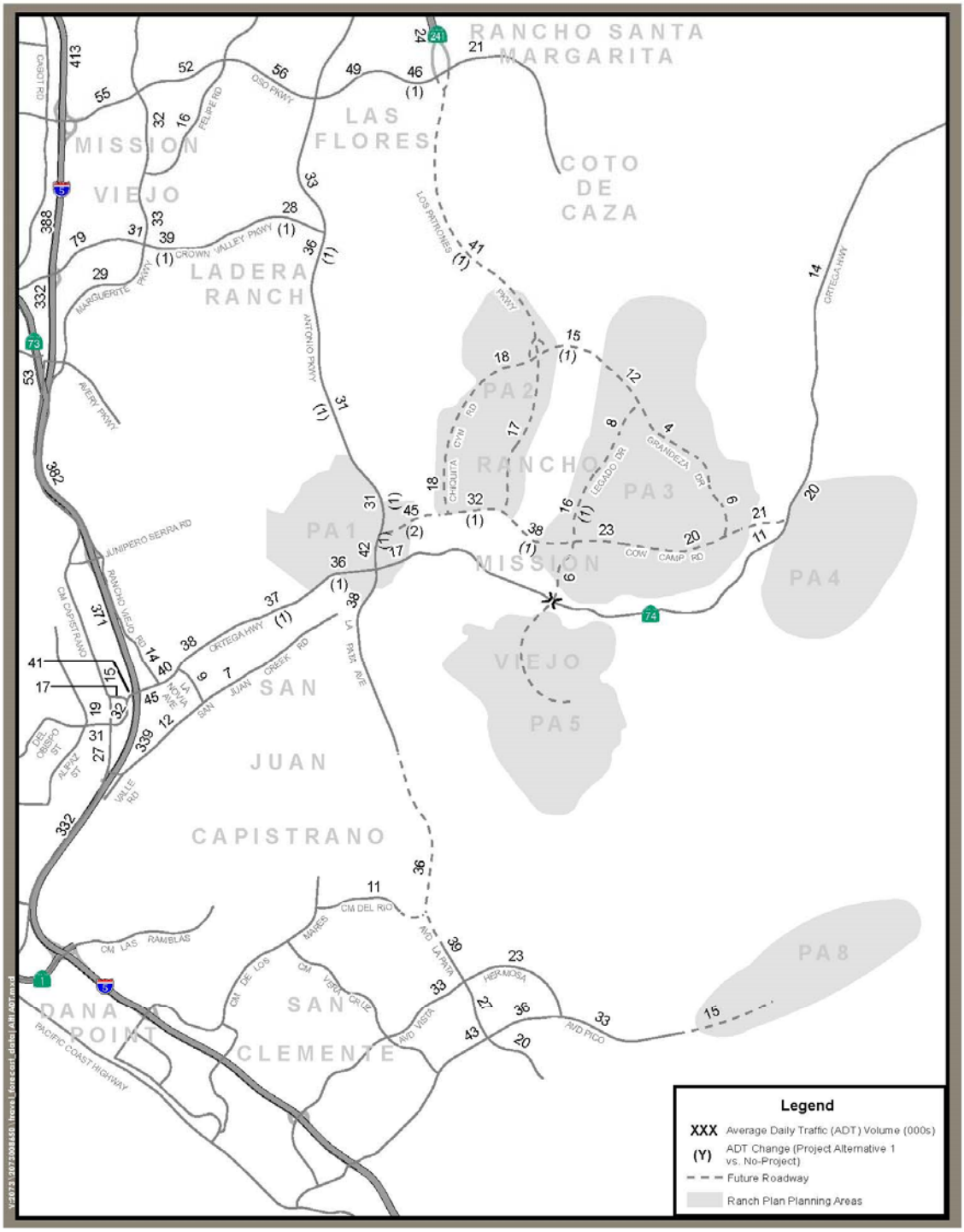


Stantec

Figure 4-5

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - No Project

4.8

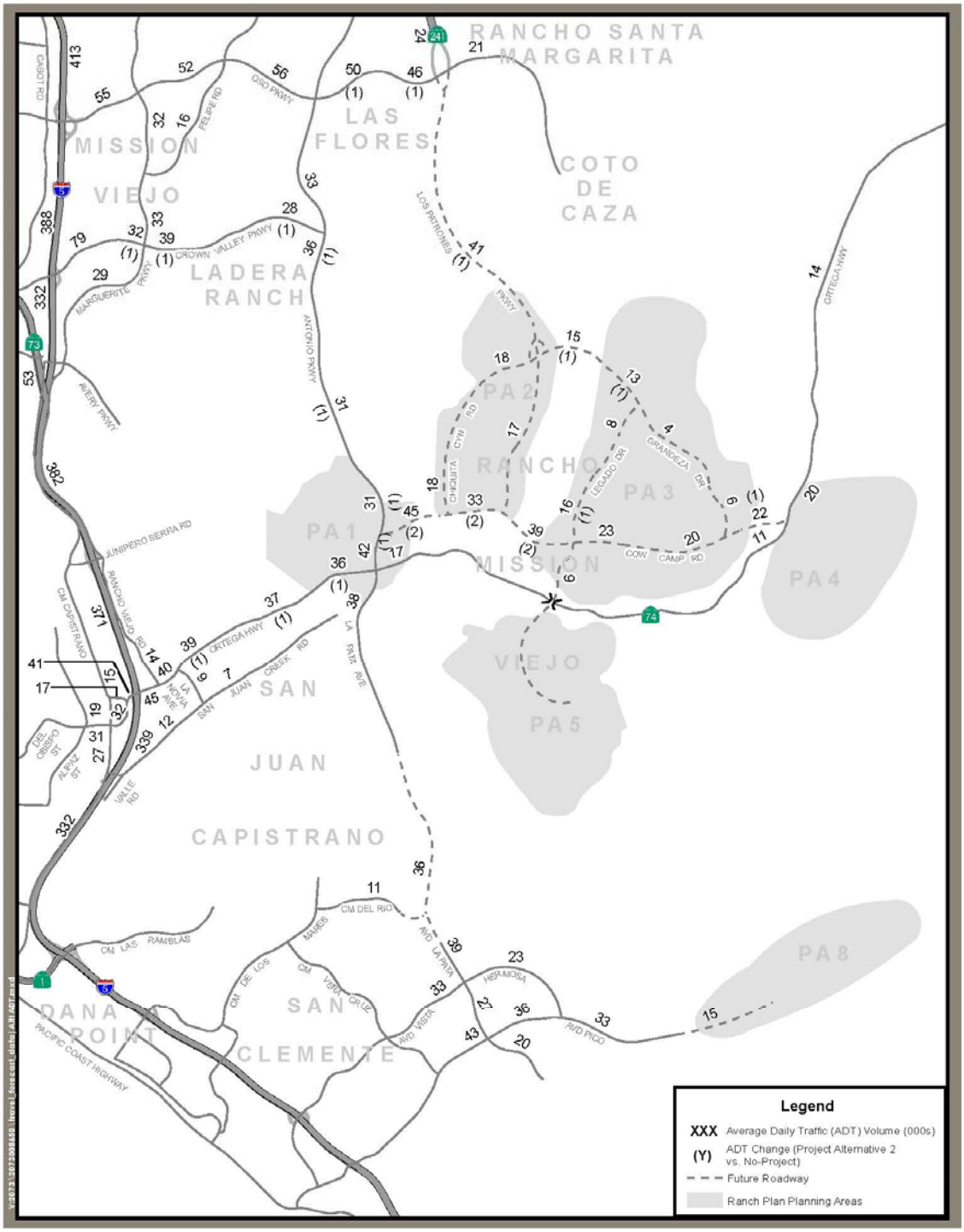


Stantec

Figure 4-6

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 1

4.9

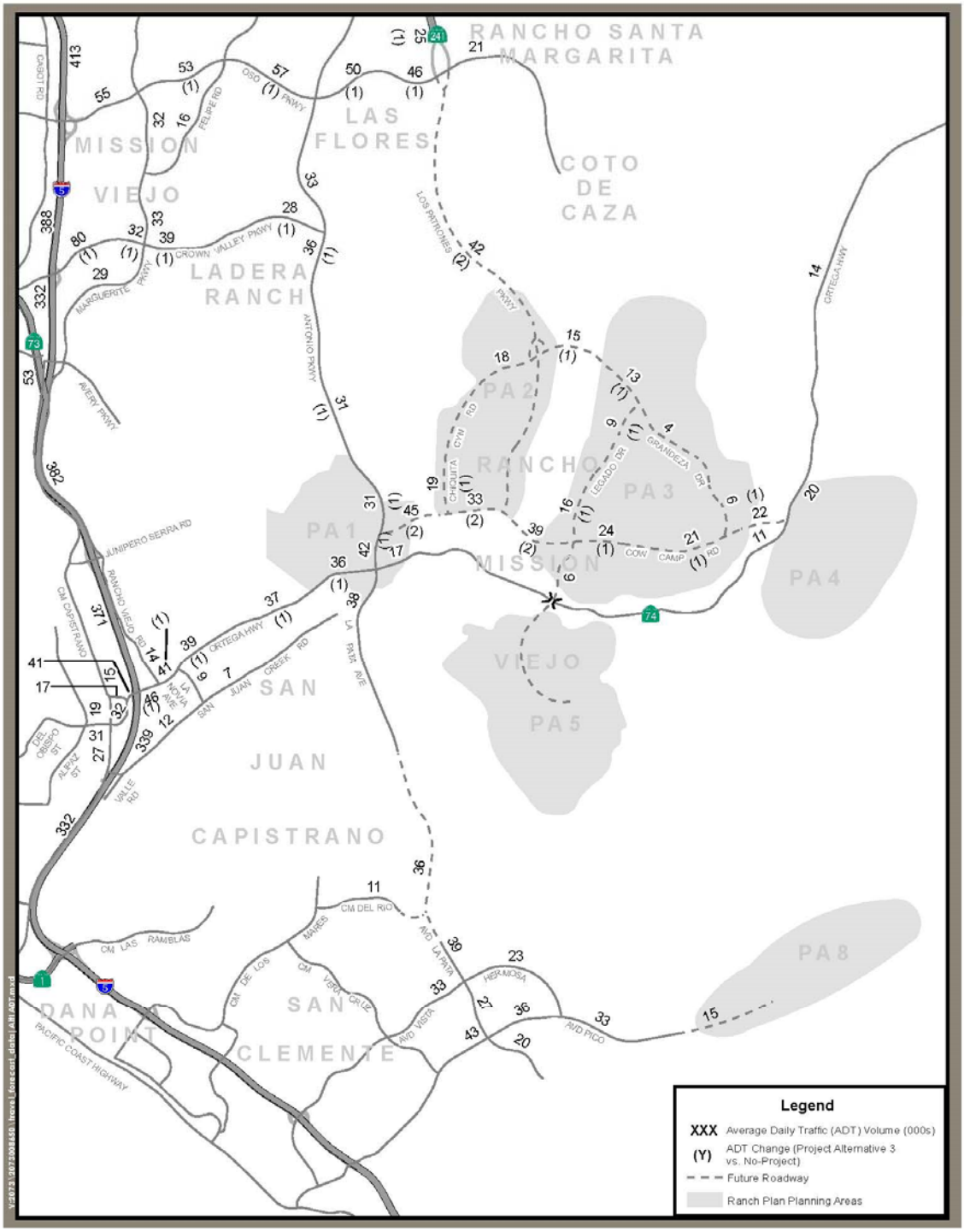


Stantec

Figure 4-7

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 2

4.10



Stantec

Figure 4-8
2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 3
4.11

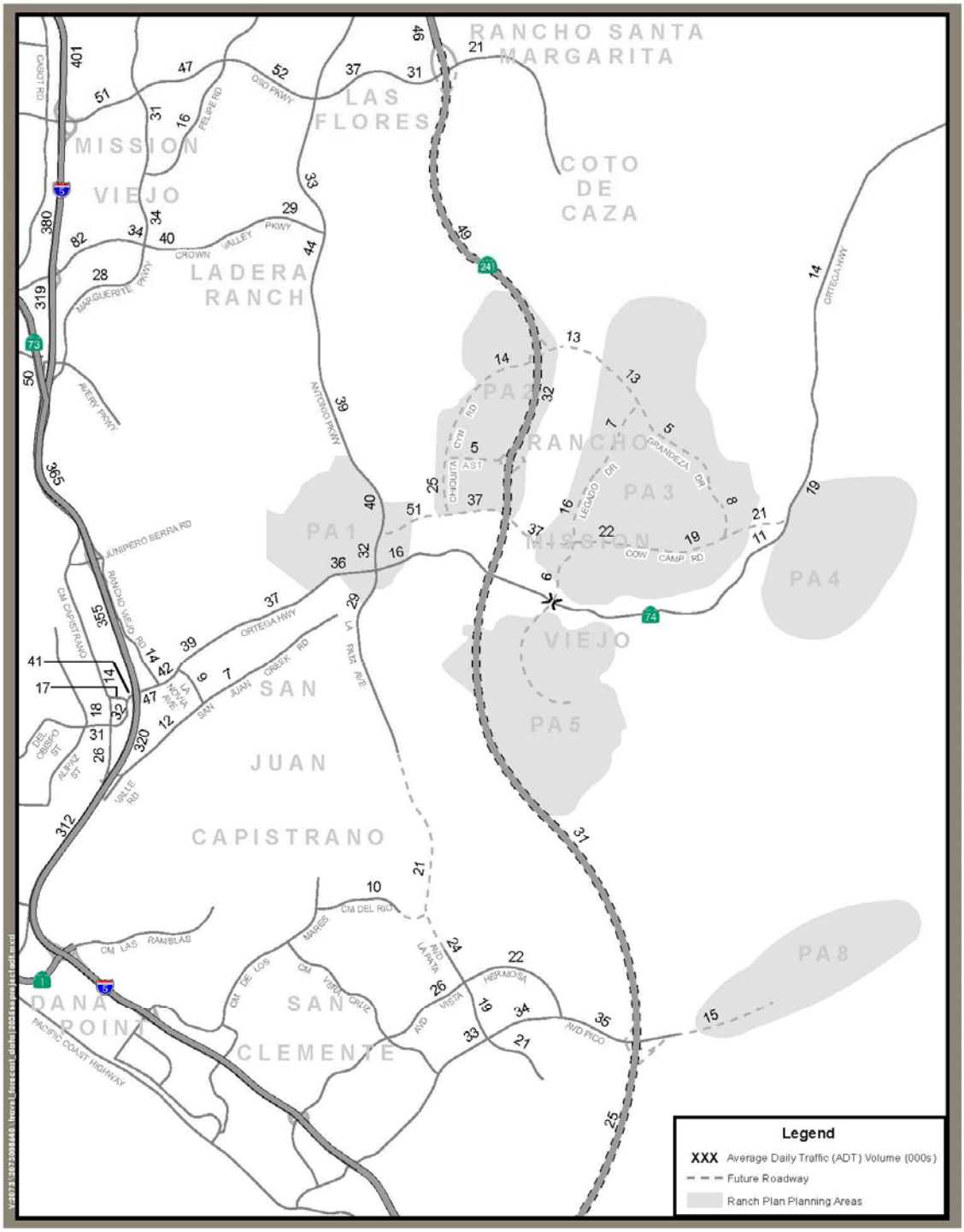


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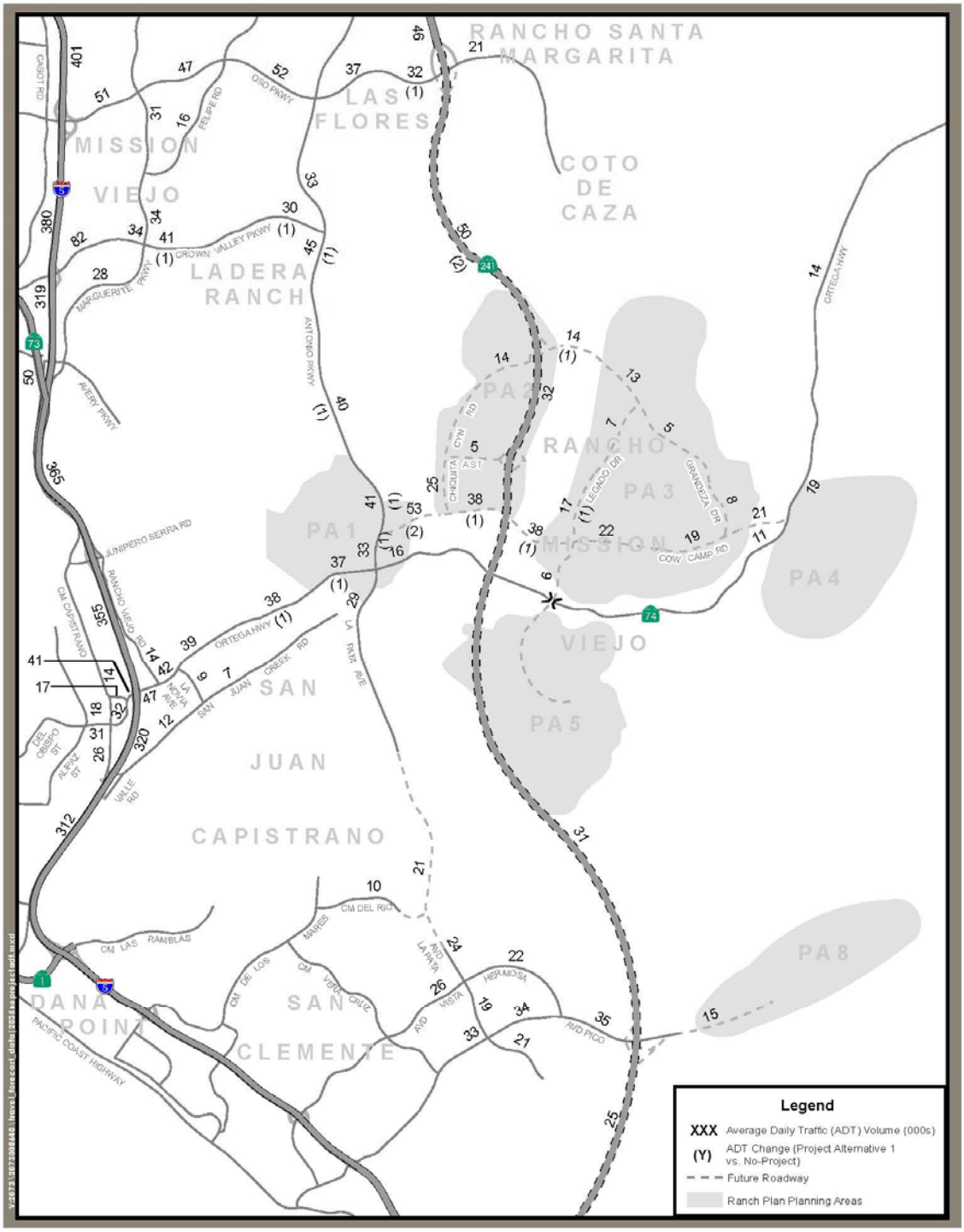
Figure 4-9

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - No Project

4.12



Stantec

N

Figure 4-10

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 1

4.13

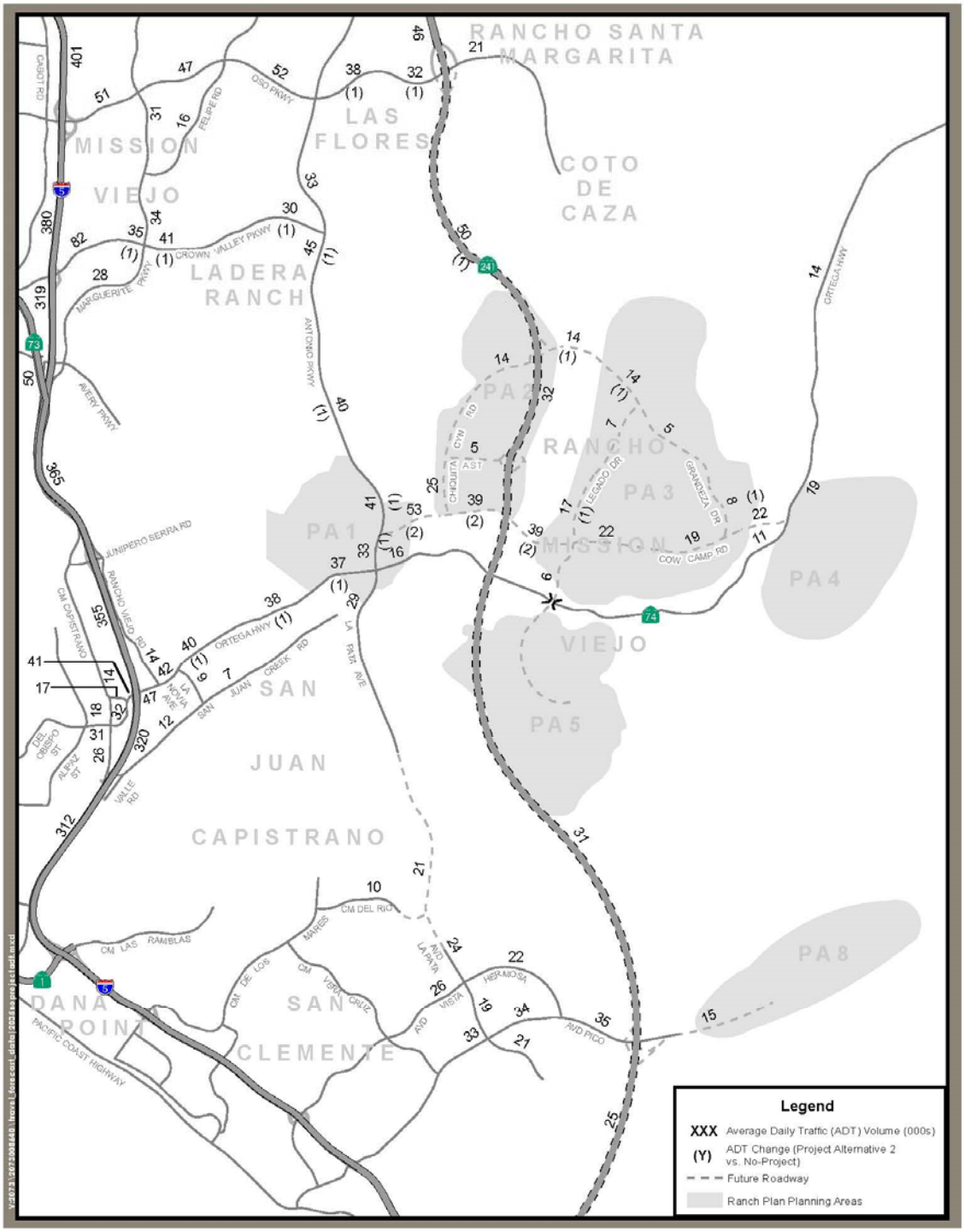


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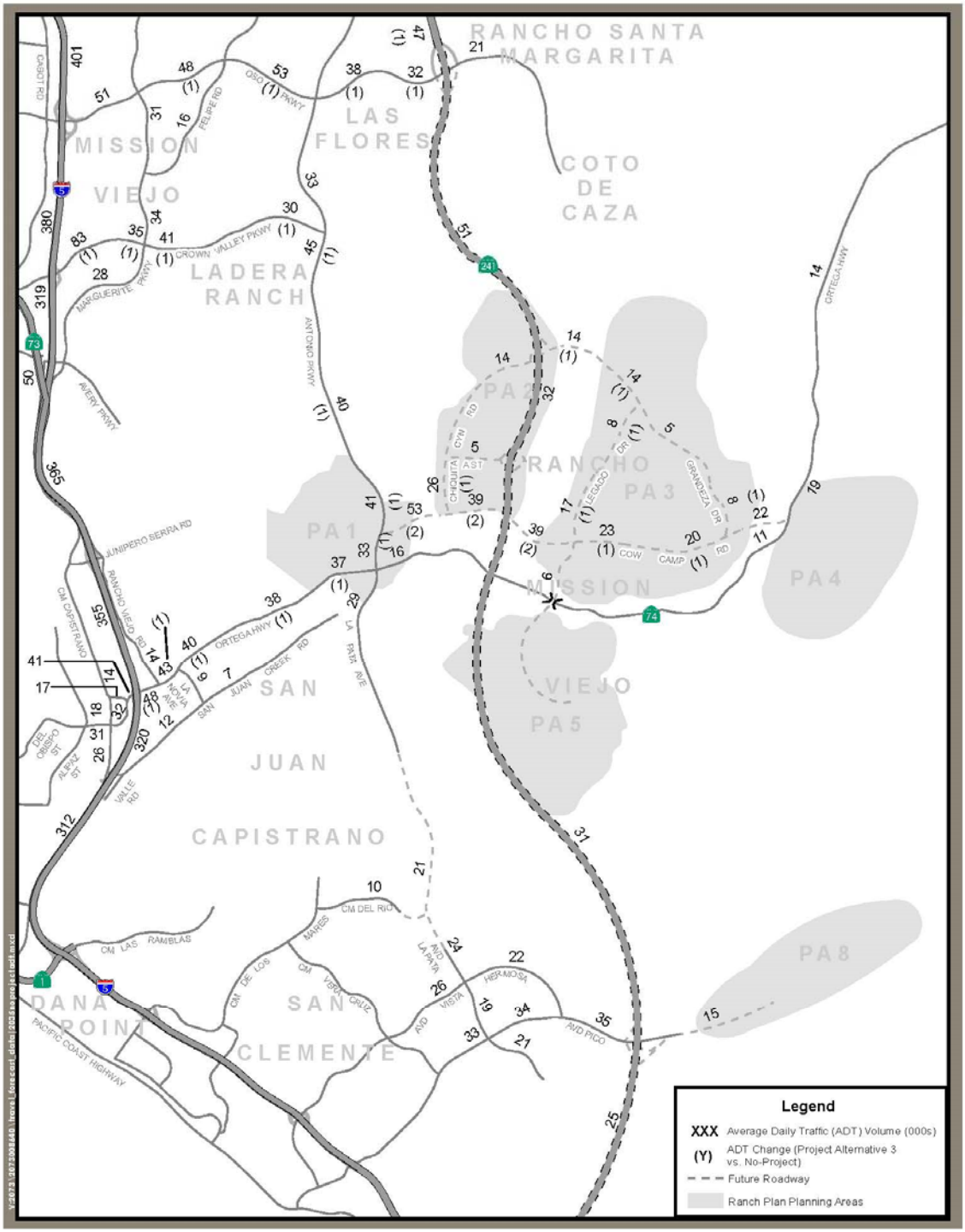
Figure 4-11

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 2

4.14



Stantec

N

Figure 4-12

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 3

4.15

ORANGE COUNTY FIRE AUTHORITY
P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602
Jeff Bowman, Fire Chief **(714) 573-6000** **www.ocfa.org**

July 28, 2016

OC Public Works
Land Development
P.O. Box 4048
Santa Ana, CA 92702-4048
Attn: Bea Bea Jimenez

SUBJECT: Affordable Housing Draft PEIR

To whom it may concern:

Thank you for the opportunity to review the subject document. The Orange County Fire Authority (OCFA) provides fire protection and emergency medical services response to 23 Orange County Cities and Orange County's unincorporated communities. We have the following comments:

- *Page 4.7-1*: Under Secured fire Protection Agreement, please change Ranch Mission Viejo to Rancho Mission Viejo — OCFA-1
- *Page 4.7-3*: Please make the following changes — OCFA-2
  - According to the SFPA, Planning Areas 3, 5, and 8 will each house a station in the future; each station will be built concurrently with its respective Planning Area and will be fully staffed and operational prior to residential occupancy.
- Although not specifically in the report, this area of development is extremely close to the former TRW/Northrop-Grumman facility (33000 Av Pico, SCL). This site operated for decades (1960's to 2011). There was extensive testing/use/storage of rocket fuels, jet fuels, and highly toxic materials. Please include any Hazardous Materials Historical Reference that may impact this project. — OCFA-3

Please contact me at 714-573-6199 if you need any further information on this matter

Sincerely,

Tamera Rivers
Management Analyst
Strategic Services Section

Serving the Cities of: Aliso Viejo • Buena Park • Cypress • Dana Point • Irvine • Laguna Hills • Laguna Niguel • Laguna Woods • Lake Forest • La Palma Los Alamitos • Mission Viejo • Placentia • Rancho Santa Margarita •San Clemente • San Juan Capistrano • Santa Ana • Seal Beach • Stanton • Tustin • Villa Park Westminster • Yorba Linda • and Unincorporated Areas of Orange County

RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES

Response to the Orange County Fire Authority
Comment Letter Dated July 28, 2016

OCFA-1 Your comment is noted. The misspelling on Page 4.7-1 of the Final Program Environmental Impact Report (PEIR) is corrected to read as follows (*red italics* shows the additional text):

> Development of the Ranch Plan Planned Community (the Ranch Plan) is subject to certain requirements imposed by the County, including provisions relating to fire protection services. As part of these requirements, Ranch*o* Mission Viejo (RMV) entered into two separate Secured Fire Protection Agreements (SFPA) with the Orange County Fire Authority (OCFA).

OCFA-2 The approved SFPA between the OCFA and the RMV Community Development, LLC, does contain provisions for interim fire protection facilities; therefore, and it cannot be stated that the SFPA requires that the new permanent stations be fully staffed and operational prior to residential occupancy. It should be noted that the last sentence of the first paragraph on page 4.7-4 of the Draft PEIR does state that, if development is occupied that is more than three miles from an existing fire station, then interim fire protection facilities and equipment may be required.

OCFA-3 Your comment concerns the potential for hazardous materials in Planning Area 8 (the former TRW/Northrup-Grumman facility). As discussed in Sections 1.8 and 3.4.4 of the Draft PEIR, the provisions of the Affordable Housing Implementation Agreement (AHIA) require RMV to provide the County of Orange with graded sites within the Ranch Plan; to provide access; and to extend utilities to the parcels before the development of the Affordable Housing units can commence. The hazardous materials impacts associated with implementation of the Ranch Plan, including the site preparation for the Project and specifically Planning Area 8, are addressed through Final Environmental Impact Report (FEIR) 589 for the Ranch Plan. This included Phase I Environmental Site Assessments (ESAs) for each Planning Area to assess the possible presence of recognized environmental conditions within the Ranch Plan site boundary where development is proposed. The term "recognized environmental conditions" is not intended to include *de minimus* conditions that generally do not present a material risk of harm to public health or the environment. The full reports were contained in FEIR 589, Technical Appendix I.

FEIR 589, prepared for the Ranch Plan, did address the potential for contamination in Planning Area 8 (Section 4.14 of FEIR 589) from the Northrup-Grumman facilities.[4] Based on the Phase I Environmental Site Assessment prepared for FEIR 589, there had been past releases of hazardous materials; however, past releases had been appropriately remediated at that time. Potential lead and/or copper hazards associated with two shooting ranges were identified and a mitigation measure requiring proper clean-up/remediation was adopted. Remedial actions, including the removal of lead-impacted soil from the Upper and Lower Shooting Ranges was

[4] Orange, County of. 2004. *The Ranch Plan Final EIR 589*. Santa Ana, CA: the County.

implemented in November 2009, and the Orange County Health Care Agency issued No Further Action letters in May 2010.[5]

FEIR 589 also noted that, when operations at the Northrup-Grumman facilities are terminated prior to implementation of the Ranch Plan, there would be the need for the preparation of a comprehensive closure plan in compliance with applicable regulatory guidance, which would ensure that sufficient safeguards for public health and safety are met. In addition to general requirements that would apply to all portions of the Ranch Plan, the following mitigation measures in FEIR 589, pertain to the Northrup-Grumman site:

- Remove, all storage tanks, fuel dispensers, clarifiers and crushing equipment in compliance with Orange County Health Care Agency (OCHCA) regulations (FEIR 589, Mitigation Measure [MM] 4.14-6). As part of this measure soil and groundwater sampling is required and development of a remediation plan pursuant to applicable laws and regulations.

- Verification of soil sampling and testing of the areas previously used for pistol ranges has been completed and spent ammunition has been removed and soils tested to assess residual lead and copper concentrations (FEIR 589, MM 4.14-11). If significant contamination is encountered, the results of the testing/investigation, etc. will be provided to the appropriate agency, for direction and oversight. Soil with residual lead or copper concentrations exceeding U.S. Environmental Protection Agency's Preliminary Remedial Goals (PRGs) shall be removed from the property and disposed of at an appropriate facility.

- Development of a comprehensive closure plan to assess, monitor, and mitigate any residual threats to human health or the environment which may remain as a result of the Northrop Grumman Space Technology Test Site operations and closure (FEIR 589, MM 4.14-12).

- The Environmental Site Assessments (ESAs) will be updated prior to issuance of a grading permit (FEIR 589, MM 4.14-13).

These measures have been included as part of the comprehensive closure plan prepared for the Northrup-Grumman site. Additional investigations, including groundwater monitoring and site characterization are currently ongoing at the facility. All locations of concern are currently under regulatory oversight and remediation by Northrup-Grumman is ongoing. Prior to the development of Planning Area 8, the site would need to meet regional screening levels for contaminants at residential receptors.

As stated in Draft PEIR 623, RMV would be required to obtain all necessary regulatory permits and/or clearances prior to the County's issuance of a grading permit.

[5] State Water Resources Control Board (SWRCB). 2016 (September, access date). CSM Report for Public Noticing, Project Information (Data Pulled from Geotracker): Northrop Grumman Capistrano Test Site – Northrop Grumman San Juan Capistrano Test Site – Facility in General (Global ID: T10000001730), 33000 Avenida Pico, San Clemente, CA 92673. Sacramento, CA: SWRCB. http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000001730.

Mitigation associated with site preparation is the responsibility of RMV. The County would not have sites for Project implementation until RMV has graded the sites, provided access, and utility services is available. Any required remediation work would be completed prior to site grading; prior to the County accepting the Affordable Housing sites; and before the units can be constructed. As part of the grading permit process for the Ranch Plan, the County would require updated hazardous materials studies to characterize the soil conditions. Should remediation activities be required, this would need to be done prior to grading and would be the responsibility of the RMV. As discussed below, these requirements are contained in the mitigation program approved as part of FEIR 589 for the Ranch Plan.

OCTA

August 29, 2016

Ms. Bea Bea Jimenez
OC Public Works/Land Development Division
P.O. Box 4048
Santa Ana, CA 92702-4048

SUBJECT: Ranch Plan Planned Community

Dear Ms. Jimenez:

Thank you for providing Orange County Transportation Authority (OCTA) with the opportunity to review the Draft Program Environmental Impact Report (DPEIR) for the above mentioned project. The following comments are provided for your consideration:

- In Chapter 4, Page 4.8-4, consider revising the last sentence to read as follows: The San Juan Creek Class I Bikeway is shown on the Orange County Transportation Authority (OCTA) *Commuter Bikeway Strategic Plan (2009)* and the *District 5 Bikeways Strategy Report (March 2015).* — OCTA-1
- Note the County of Orange *Major Riding & Hiking Trails and Off-Road Paved Bikeways* map (November 2013) typically utilizes the terms "riding and hiking trail" to describe a soft-surface facility for equestrian use and walking/jogging activities. In comparison, the County typically utilizes the term "bikeways" to reflect paved bikeways. The County does not combine these terms interchangeably. — OCTA-2
- In Chapter 4, Section 4.8, Exhibit 4.8-1, — OCTA-3
  a. Consider revising to illustrate existing bikeways and trails outside of The Ranch to better convey linkage to the surrounding communities.
  b. Consider revising to illustrate existing bikeways and trails constructed within The Ranch such as along Cow Camp and Esencia Drive.
  c. The exhibit appears to reflect trails and bikeways identified on the County of Orange *Major Riding & Hiking Trails and Off-Road Paved Bikeways* map (November 2013), but labels are not provided. Consider revising the exhibit to identify the trails and bikeways identified by the County for ease in comparison and review. Additionally, consider providing additional street names such as La Pata Road south of San Juan Creek.
- In Chapter 4, Section 4-9, Exhibit 4.9-1 and "Planned Circulation System" on Page 4.9-10 describe the Ranch Plan circulation network. The "Planned Circulation System" is not consistent with the MPAH as noted, "On the Orange County Master Plan of Arterial Highways (MPAH), Grandeza Drive between Los Patrones Parkway and Cow Camp Road is designated as a four-lane secondary arterial and Cow Camp Road between Grandeza Drive and Ortega Highway is designated as a four-lane primary arterial. Current design of these two roadways includes the option to construct the segment of Grandeza Drive across Gobernadora Canyon (i.e., between Los Patrones Parkway and Legado Drive) — OCTA-4

Orange County Transportation Authority
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and the segment of Cow Camp Road across San Juan Creek (i.e., between Grandeza Drive and Ortega Highway) as two-lane roadways although the MPAH has not yet been amended to designate these segments as two-lane roadways." Please contact OCTA to initiate an amendment to the MPAH prior to construction in order to maintain eligibility for Measure M2 funding.

OCTA-4 cont.

- In Chapter 4, Page 4.9-85 under "Mass Transit" provides the nearest available transit service at Ortega Highway and Rancho Viejo Road which is Route 191. In February 2016, the OCTA Board of Directors approved the 2016 Bus Service Plan (Link: http://www.octa.net/pdf/FINAL_2016_SERVICE_CHANGE.pdf). This plan reallocates bus service with the intention of increasing ridership. As part of this plan, Route 191 will be discontinued in the upcoming October 2016 service change. Accordingly, please reflect this upcoming change under "Mass Transit."

OCTA-5

Throughout the development of the City's General Plan Update, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714) 560-5907 or at dphu@octa.net.

Dan Phu
Environmental Programs, Manager

November 8, 2016

Ms. Rose Fistrovic, Manager
OC Public Works/OC Planning
300 North Flower Street
Santa Ana, CA 92702

SUBJECT: **Ranch Plan Planned Community Draft Program Environmental Impact Report No. 623 (SCH No. 2015051062)**

Dear Ms. Fistrovic:

Thank you for providing Orange County Transportation Authority (OCTA) with the *Responses to Comments on Program Environmental Impact Report 623* for the abovementioned project. We suggest the following revision for Comment Response OCTA-5, on page 2-36, and have some additional information for your consideration:

- "Bus Route 91 in San Juan Capistrano may provide connections with stops at the San Juan Capistrano Train Depot and at Mission San Juan Capistrano. There are currently no bus routes that would extend east to the Ranch Plan area. In the future, the Community-Based Transit/ Circulators Program, known as RanchRide, will operate through a public-private partnership with the County of Orange with funding from OCTA's Measure M2 Project V program. As the program develops, more information about schedules will become available."
- Additionally, please note as part of OCTA's October 2016 service change, Route 82 has been cut back south of Santa Margarita at Antonio thus no longer serves Ladera Ranch.

Throughout the development of the Ranch Plan Planned Community, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714) 560-5907 or at dphu@octa.net.

Sincerely,

Dan Phu
Manager, Environmental Programs

Orange County Transportation Authority
550 South Main Street / P.O. Box 14184 / Orange / California 92863-1584 / (714) 560-OCTA (6282)

Response to the Orange County Transportation Authority
Comment Letter Dated August 29, 2016

OCTA-1 Your comment is noted and the suggested revision is hereby made to the Final Program Environmental Impact Report (PEIR). However, it should be noted that this addition does not materially change the description of Project or the findings of the Draft PEIR. The text of the last sentence on page 4.8-4 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> The San Juan Creek *Class I* Bikeway is *shown* ~~also~~ on the Orange County Transportation Authority's (OCTA's) *Commuter Bikeway Strategic Plan (2009) and the District 5 Bikeways Strategy Report (March 2015)* ~~for regional bikeways~~.

OCTA-2 Your comment is noted; however, the purpose of the comment and whether a correction is being requested is not clear. The definition of the various classifications of bikeways is provided on page 4.8-4. These definitions are taken from the County's General Plan Transportation Element. The Recreation Element does not include similar definition; however, the County does have design standards for the regional riding and hiking trails that address grading, erosion control, signage, and fencing requirements. It should be noted that the Project addressed in Draft PEIR 623 will not be responsible for the provision of any bikeways or riding and hiking trails. The references in the Draft PEIR to future facilities was intended to provide a context of the amenities that would be available to the residents in the Ranch Plan, including those living in the Affordable Housing units. The riding and hiking trails are identified as facilities designated on County of Orange Master Plan of Regional Riding and Hiking Trails component of the Orange County General Plan's Recreation Element. Similarly, the references to specific bikeways is to facilities identified on the Orange County Bikeways Plan component of the Orange County General Plan's Transportation Element. Exhibit 4.8-1 of the Draft PEIR depicts the Ranch Plan Trails and Bikeways Concept, which is a combined map of facilities that will be implemented in the Ranch Plan as part of the County's more detailed planning and mapping effort. This exhibit not only depicts the regional trails and bikeways but the community trails that have been committed to by Rancho Mission Viejo (RMV).

OCTA-3 As indicated above, Exhibit 4.8-1 is a map of trails that will be implemented as part of the Ranch Plan. It was developed as part of the more detailed planning and mapping effort for the Ranch Plan and approved by the County of Orange. As such, making revisions to this exhibit is not recommended as part of this Project. The following provides an updated status of these facilities:

- The Class I Bikeway in Planning Area 1 is officially open. The extension over to Planning Area 2 is expected to open in Spring 2017 when more of Planning Area 2 is occupied.

- No portion of the San Juan Creek Riding and Hiking Trail is open although the portion extending through Sendero Community Park is finished and used by park users.

- Trail Y is opened and connects the completed portion of the Class I Bikeway in Planning Area 1 to the Ladera Loop Trail in Ladera Ranch

The following note is hereby added to Exhibit 4.8-1. The updated exhibit is provided in Section 3.1 of these Responses to Comments.

Subsequent to the approval of the Master Trail and Bikeway Implementation Plan, the portion of the Class I Bikeway in Planning Area 1 has been completed and is open for public use. Additionally, Trail Y has opened, which connects the completed Class I Bikeway in Planning Area 1 to the Ladera Loop Trail in Ladera Ranch.

A copy of the 2015 County of Orange Major Riding & Hiking Trail and Off-Road Paved Bikeways Map with the Ranch Plan boundary shown is provided for context of the Project to the surrounding regional facilities.

OCTA-4 As the comment notes, the Draft PEIR acknowledges that, if the options for constructing Grandeza Drive between Los Patrones Parkway and Cow Camp Road and Cow Camp Road between Grandeza Drive and Ortega Highway as two-lane facilities is pursued, an amendment to the Master Plan of Arterial Highways (MPAH) would be required. This discussion is provided on page 4.9-10 of the Draft PEIR.

OCTA-5 Your comment is noted. The Final PEIR has been updated to reflect that the mentioned transit route will not be operational starting in October 2016. It should be noted that this will not change the findings, which state that the Project would not have any impact on transit services. The Draft PEIR does not assume any trip or air emission reductions due to transit. The following text is hereby added after the second sentence in the Mass Transit discussion on page 4.9-85 (*red italics* shows the additional text; strike-out and underlined text reflects the change to the response to reflect the comments in the OCTA November 8, 2016 comment letter):

The closest transit service is in the vicinity of Ortega Highway and Rancho Viejo Road (near I-5)*; however, this line will be discontinued starting in October 2016*. *Bus Route 91~~, also~~ may in San Juan Capistrano~~, will~~ provide ~~similar~~ connections~~,~~ with stops at the San Juan Capistrano Train Depot and at Mission San Juan Capistrano. There ~~still~~ are currently no bus routes that would extend east to the Ranch Plan area. ~~However, to the north, Bus Route 82 provides a connection at Crown Valley Parkway and Antonio Parkway in Ladera Ranch. Starting in October 2016,~~ In the future, the Community-Based Transit/Circulators Program, known as RanchRide, will operate through a public-private partnership with the County of Orange with funding from OCTA's Measure M2 Project V program. As the program develops, more information about schedules will become available.*

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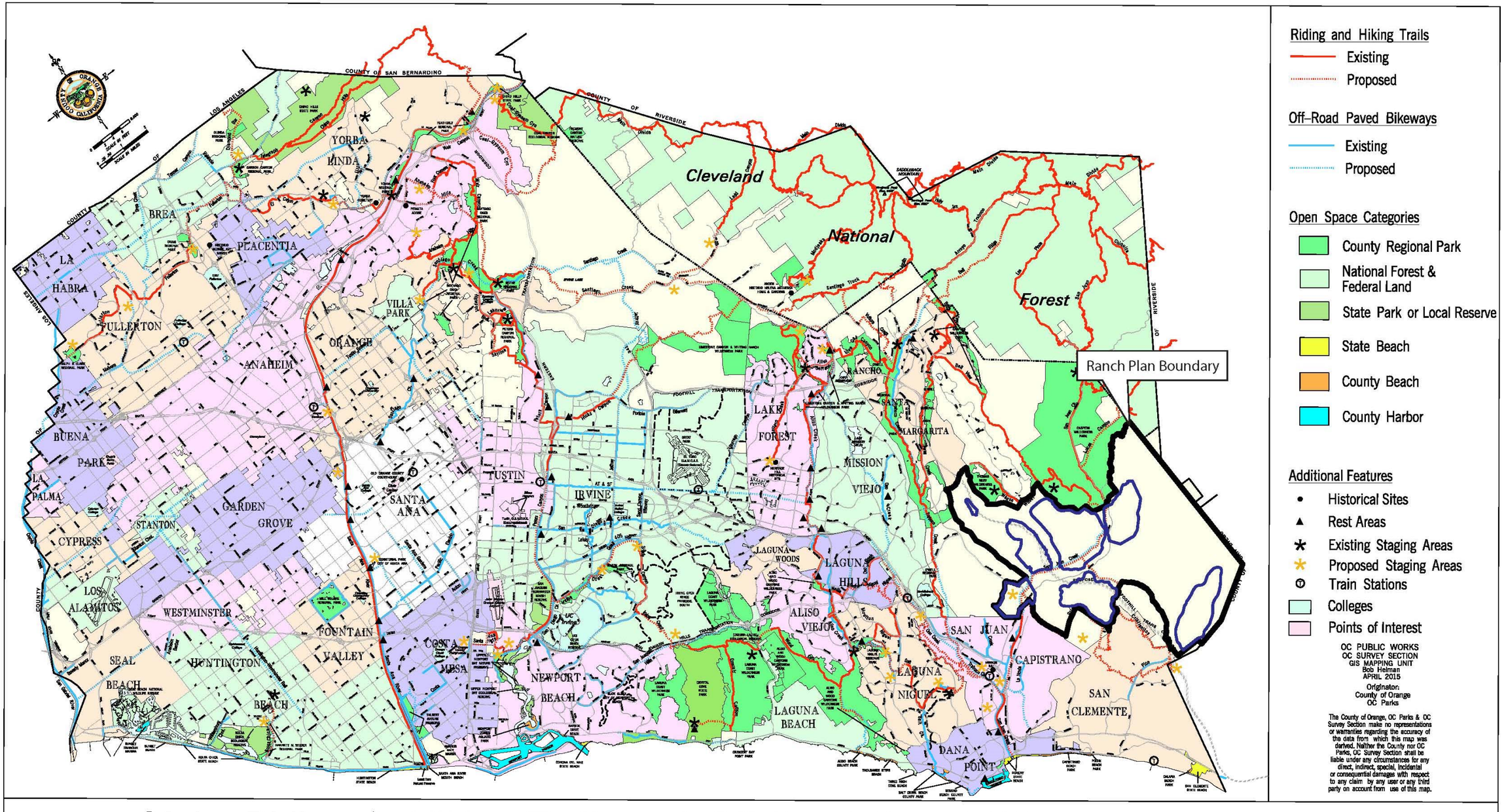

Major Riding & Hiking Trails and Off-Road Paved Bikeways

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RANCHO MISSION VIEJO

August 29, 2016

Bea Bea Jimenez
OC Public Works
Land Development Division
P. O. Box 4048
Santa Ana, California 92702-4048

Subject: Response Comments for Draft Program Environmental Impact Report (SCH #2015051062), Orange County Affordable Housing Implementation Program – Ranch Plan

Ms. Jimenez;

Thank you for providing Rancho Mission Viejo with the opportunity to review and comment on the subject Draft Program Environmental Impact Report (PEIR).

Rancho Mission Viejo (RMV) has been in the process of implementing its Ranch Plan development approved in 2004 and opening home sales in the Sendero Community (Planning Area 1) in 2013. The implementation affordable housing is being provided in compliance with the approved County/RMV Development Agreement (2004), approved Affordable Implementation Housing Agreement (AHIA) (2006) and subsequently approved AHIA Addendum Number One (2013). RMV has continued to work with the County to identify practicable alternatives to provide affordable housing with minimal costs with the County's loss of State Redevelopment funds and 40% cuts in Federal HOME Investment Partnership Program funds.

The AHIA Addendum Number One authorized the use of a "Private-Sector Alternative" method of development for affordable housing in Planning Areas 1 and 2 of the Ranch Plan. These affordable housing projects are appropriately recognized in the Draft PEIR and continue to proceed toward development construction and occupancy providing 219 affordable units on 7.8 gross acres. The remainder affordable housing acreage required under the AHIA is addressed by the Draft PEIR together with a second amendment to the AHIA for the continuance of the Private-Sector Alternative for development of affordable housing in the Ranch Plan development.

We offer the following comments to the Draft PEIR:

1. Page 2-12, Section 2.6.2 Affordable Housing Implementation Agreement – The summary discussion of the AHIA and Development Agreement reference should include mention of the County's obligation to RMV for recovery of associated infrastructure and grading costs with development of the affordable housing sites. This would also apply to

RMV-1

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subsequent discussions for Scenario 2 and 3 Alternatives where public-sector resources are utilized. Exhibit D, Section 9 of the Rancho Mission Viejo/County of Orange Development Agreement approved November 8, 2004, page 55, provided that the County "…allow OWNERS (RMV) to recover the costs incurred in (i) providing the infrastructure necessary to support access to, and use of, the affordable housing project(s) to be developed on the Dedicated Land and (ii) grading, preparing and conveying the Dedicated Land to County in accordance with the provisions hereof." RMV-1 cont.

2. Page 2-14, Section 2.6.2 Affordable housing in PA 1 and 2 – An added recognition of CEQA documentation and process for PA 1 & 2 should be identified with the discussion of the PA 1 and 2 projects to distinguish separate from this Draft PEIR, as provided earlier in the Executive Summary. RMV-2
3. Page 2-15, Section 2.6.3 Infrastructure Improvements – Cow Camp Road Segment 2 should be clarified to begin construction in 2017/18 and need 24 months (instead of beginning in 2017 and need 18 months) based on current schedules. A project description for Ortega Highway improvements in the County should be added, pending improvements in the City, as well as the completed I-5 Interchange. Also, a completion date for the Zone II/Zone B Reservoirs for October 2016, should be added which are under construction. RMV-3
4. Page 2-20, Section 2.8.2 La Pata – The text should clarify that the first phase completes August 2016 and the second phase was begun in 2016. RMV-4
5. Exhibit 4.4-4 – This exhibit should have the same notation as other Ranch Plan exhibits noting the HCP limits for gross acres of development in Planning Areas 4 and 8. RMV-5
6. Page 4.8-5 and 6 - Under Scenario 3, it is correct there would be sufficient Quimby/local parkland available for use by the addition affordable housing residents, however, this does not remove the County's obligation for providing added parkland or payment of park in-lieu fees. The fact that the Ranch Plan project is "parks rich" does not justify avoidance of the requirement. This should be clearly stated along with the County's ability to waive in-lieu fees for affordable housing. RMV-6
7. Page 4.9-9 – This paragraph notes the project trip distribution is consistent with the internal/external relationship assumed in the 2004 EIR for the Ranch Plan as well as subsequent traffic studies such as the PA 3 and 4 Area Plan and Traffic Study however, the project's traffic report on Figure 4-9 depicts a volume of 21,000 ADT for Cow Camp Road at its easterly terminus with Ortega Highway. The PA 3 and 4 Area Plan Traffic Study depicts a volume of 18,000 ADT (Figure D-2). This inconsistency should be rectified. RMV-7

We appreciate this opportunity to comment on the Draft PEIR for the Orange County Affordable Housing Implementation Plan – Ranch Plan.

Sincerely,

Richard M. Broming
Sr. VP, Planning & Entitlement

CC: Robyn Uptegraff, County of Orange
Rose Fistrovic, County of Orange

Response to the Rancho Mission Viejo
Comment Letter Dated August 29, 2016

RMV-1 Your comment is noted. Addendum Two does not propose changes to the Rancho Mission Viejo/County of Orange Development Agreement for any Dedicated Lands that would be developed using public-sector resources. This is already acknowledged in the PEIR. Specifically, Section 2.6.2, page 3-3, states, "If public sector resources are used the process would follow the requirements of the original AHIA, which are summarized below under Project Processing." Therefore, no changes to the Final PEIR are deemed necessary.

RMV-2 Your comment is noted. However, adding a statement to Section 2.6.2 is not necessary because, as noted in the comment, the fact that separate CEQA documentation has been prepared for the affordable housing units in Planning Areas 1 and 2 has already been stated in the PEIR in Section 1.3, Project Background.

RMV-3 Clarification of on the timing of the improvements to Cow Camp Road Segment 2 are hereby made to the Final PEIR. The requested revisions do not modify the description of the Project or the findings of the Draft PEIR. The last sentence of the discussion of Cow Camp Road on page 2-15 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> The extension of the roadway from the eastern edge of Planning Area 2 over to Ortega Highway (known as "Segment 2") is under design. *The roadway will be constructed in phases. It is anticipated that the first phase of construction will extend east from Los Patrones Parkway, located on the eastern edge of Planning Area 2, over Gobernadora Canyon, and continue at-grade for approximately 1.25 miles.* Construction of *the initial phase of the* Segment 2 is expected to begin in ~~*2017*~~ *2018* and take *approximately 24*~~18~~ months to complete. *The remaining phases of the roadway will be constructed based on the phasing of development and the availability of funding, until it ultimately connects to Ortega Highway (SR-74).*

Section 2.6.3 is entitled "Subsequent Approvals and Modifications to the Ranch Plan". The improvements to the Ortega Highway interchange, which was completed in 2016, were not associated with the Ranch Plan. This was a separate California Department of Transportation (Caltrans) project distinct from the Ranch Plan. Similarly, the improvements to the segment of Ortega Highway in the City of San Juan Capistrano (widening from Calle Entradero to the City's eastern boundary) are not directly related to the Ranch Plan and would not be considered "Subsequent Approvals and Modifications to the Ranch Plan", though the planning for the City improvements are undertaken in conjunction with the improvements in unincorporated Orange County. The widening of Ortega Highway in the unincorporated portion was done as a Ranch Plan improvement, though it was not a modification to the original approval, which called for the widening of Ortega Highway as part of the Ranch Plan project. Therefore, the requested information is better located in Section 2.5, Environmental Setting. This information does not change the Project description or any of the analysis in the Draft PEIR; however, to enhance the readers' understanding of improvements in the area and the joint planning efforts for Ortega Highway, the

following text is hereby added to page 2-10, following the third paragraph that discusses regional access (*red italics* shows the additional text).

> *In 2006, Caltrans and the County prepared separate but coordinated engineering and environmental documents for the widening of Ortega Highway. Overall, Ortega Highway is proposed to be widened from Calle Entradero in the City of San Juan Capistrano to a point located 1,900 feet east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue in the County of Orange. The roadway would then transition back to the existing two-lane segment east of Antonio Parkway. Caltrans' document addresses the widening from Calle Entradero to the western boundary of the RMV Planning Area. The County's environmental evaluation for the approximate 1.1-mile segment from the western RMV Planning Area boundary to east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue was addressed in the Addendum to FEIR 589 prepared for the Master Area Plan and Subarea Plans for Planning Area 1. The roadway improvements, which widened Ortega Highway to four lanes, were completed for the unincorporated area in 2010. Improvements in the City of San Juan Capistrano are pending once funding is available. Though not related to the Ranch Plan, it should also be noted, that Caltrans completed a major reconstruction of the Ortega/Interstate 5 interchange in 2015.*

The status of the Zone II/Zone B reservoir tanks is hereby updated in discussion of Water Reservoir Facilities in Section 2.6.3. The second to the last sentence in the discussion of Water Reservoir Facilities on page 2-16 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> Additionally, construction *was completed in 2016* ~~initiated in 2015~~ on one 3.0-MG domestic water reservoir and one 2.0-MG recycled water reservoir, both of which are also located in Chiquita Canyon, south of Tesoro High School (SMWD 2015a).

RMV-4 Your comment on the timing of improvements to La Pata Avenue is noted and the update is hereby made to the Final PEIR. It should be noted that the first phase of improvements were completed after the release of the Draft PEIR for public review. This update does not change the Project description or the findings of the Draft PEIR. However, to ensure the most current information is provided to the decision-makers, the second to the last sentence of the second paragraph in Section 2.8.2 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ shows the deletions):

> This phase ~~is expected to be~~ *was* completed in ~~fall~~ *summer* 2016. The second phase will widen the existing La Pata Avenue with one additional travel lane in each direction between Ortega Highway and just south of Vista Montana. This phase ~~is expected to~~ start*ed in summer* 2016 and is projected to be completed in 2017 or 2018.

RMV-5 Your comment is noted and the notation has been added to Exhibit 4.4-4. The revised exhibit, which is provided at the end of Section 3.1, contains the following notation in a text box at the lower left hand corner of the exhibit (*red italics* shows the additional text):

Note: The Southern Subregion Habitat Conservation Plan limits the amount of gross acres of development in Planning Area 4 and Planning Area 8. Of the 1,127 acres in Planning Area 4, Ranch Plan development is limited to 515 acres, with an additional 175 acres allowed for reservoir use by the Santa Margarita Water District. Planning Area 8 is 1,349 acres; however, development is limited to 500 acres.

RMV-6 Your comment is noted. Based on the two thresholds for this topical area, the fact that the Project residents would utilize parkland developed as part of the Ranch Plan does not change the findings of the Draft PEIR.

Threshold 4.8-1 asks if the Project would "increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated". The Draft PEIR acknowledges that the Project would add additional population to the area and does not propose providing additional parkland because the Affordable Housing sites are specifically identified for the construction of housing for lower income population in Orange County. In analyzing whether the Project's impact with respect to this threshold, the Draft PEIR relies on the County's Local Park Code requirements, and does identify the amount of parkland that would be required to meet the County's Local Park Code to serve this need (2.56 acres, 3.41 acres, or 5.11 acres of parkland for Scenarios 1, 2, and 3, respectively). When assessing if the increase (as a result of the Project) of the use of existing and planned neighborhood and regional parks or other recreational facilities would result in a substantial or accelerated physical deterioration of the facilities, the Draft PEIR found that, due to the "parks rich" nature of the Ranch Plan, the Project would not result in or accelerate substantial physical deterioration of available and planned recreational facilities, including park facilities.

Similarly, for Threshold 4.8-2, which asks if the Project would "include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment", the Project would not result in any impacts, because the Project does not propose the construction of recreational facilities, nor does it require, based on its size relative to the availability and nature of existing and planned local and regional existing facilities, the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The following text has been added at the end of the first paragraph on page 4.8-6 (*red italics* shows the additional text):

> Given the "parks rich" character of the community, the Project (all development scenarios) would not result in an increase*d* use of existing *and planned* neighborhood *parks* or *the regional parks or* other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *The Orange County General Plan's Housing Element also exempts affordable housing projects from the payment of in-lieu park fees.*

RMV-7 The traffic volumes in the Draft PEIR and accompanying technical report (Appendix E to the Draft PEIR) are consistent with traffic analyses in FEIR 589 and subsequent

traffic analyses prepared for project-level Ranch Plan approvals. The comment specifically identifies a concern regarding the consistency with the traffic analysis done for Planning Areas 3 and 4, and as it relates to the traffic volumes on the segment of Cow Camp Road east of Grandeza Drive (identified as "K" Street in the analysis done for Planning Areas 3 and 4).

A comparison of the traffic generation tables from both the technical reports show the same Ranch Plan generated traffic volumes have been used. For Draft PEIR 623, this information is provided in Table 2-1 of Appendix E. For Planning Areas 3 and 4 this is shown in Tables A-1 (EIR Traffic Generation tables assumed in FEIR 589) and Table 1 (Trip Generation for Planning Areas 3 and 4) of the traffic study.[6] As shown, the total trip generation rates match as do the trips assumed for Planning Areas 3 and 4.

The difference in the traffic volume shown east of Grandeza Drive is related to how the volumes were posted. The traffic study for Planning Areas 3 and 4 posted two volumes east of "K" Street (subsequently named Grandeza Drive), whereas the traffic report prepared for Draft PEIR 623 posts only one traffic volume on Cow Camp Road east of Grandeza Drive. Specifically, the volume shown in the Draft PEIR corresponds to the westerly end of the segment (i.e., just east of Grandeza Drive). A review of the traffic model data that was prepared for the Draft PEIR indicates that the forecast volume on the easterly end of the segment in the 2035 Cumulative condition would vary from 17,000 ADT, with the No Project Alternative and Scenario 1 and 18,000 ADT, with Scenarios 2 and 3. This is consistent with the volume shown in the traffic study for Planning Areas 3 and 4, which estimated 18,000 ADT for that same segment of Cow Camp Road. On the westerly end of the segment, the updated traffic model prepared for the Draft PEIR indicates slightly lower volumes than did the Planning Areas 3 and 4 traffic study, but the difference in volume would not have an effect on the findings of the Planning Areas 3 and 4 report.

[6] To facilitate the review of these Responses to Comments, the referenced traffic generation tables have been provided as Attachment A to this Responses to Comments document.

3.0 CLARIFICATIONS AND REVISIONS AS PART OF THE FINAL PEIR

Revisions and clarifications have been made to the Draft Program Environmental Impact Report (PEIR) based on input received during the public review period and while preparing the responses to comments on the Draft PEIR. None of these clarifications and revisions reflect a substantial change to the Project description, nor would any of the changes result a new impact or intensification of an impact already identified in the Draft PEIR. None of the changes are in response to comments that raise significant environmental points. Additions to the Draft PEIR are shown in *red italicized* text and deletions are shown in ~~red strikethrough~~ text.

3.1 CLARIFICATIONS AND REVISIONS TO THE DRAFT PEIR

Section 2.5, Environmental Setting

The following text is hereby added to page 2-10, following the third paragraph, which discusses regional access (*red italics* shows the additional text).

> *In 2006, Caltrans and the County prepared separate but coordinated engineering and environmental documents for the widening of Ortega Highway. Overall, Ortega Highway is proposed to be widened from Calle Entradero in the City of San Juan Capistrano to a point located 1,900 feet east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue in the County of Orange. The roadway would then transition back to the existing two-lane segment east of Antonio Parkway. Caltrans' document addresses the widening from Calle Entradero to the western boundary of the RMV Planning Area. The County's environmental evaluation for the approximate 1.1-mile segment from the western RMV Planning Area boundary to east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue was addressed in the Addendum to FEIR 589 prepared for the Master Area Plan and Subarea Plans for Planning Area 1. The roadway improvements, which widened Ortega Highway to four lanes, were completed for the unincorporated area in 2010. Improvements in the City of San Juan Capistrano are pending once funding is available. Though not related to the Ranch Plan, it should also be noted, that Caltrans completed a major reconstruction of the Ortega/Interstate 5 interchange in 2015.*

Section 2.6.3, Subsequent Approvals and Modifications to the Ranch Plan

The last sentence of the discussion of Cow Camp Road on page 2-15 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show deleted text):

> The extension of the roadway from the eastern edge of Planning Area 2 over to Ortega Highway (known as "Segment 2") is under design. *The roadway will be constructed in phases. It is anticipated that the first phase of construction will extend east from Los Patrones Parkway, located on the eastern edge of Planning Area 2, over Gobernadora Canyon, and continue at-grade for approximately 1.25 miles.* Construction of *the initial phase of the*

> Segment 2 is expected to begin in ~~*2017*~~ *2018* and take *approximately 24*~~18~~ months to complete. *The remaining phases of the roadway will be constructed based on the phasing of development and the availability of funding, until it ultimately connects to Ortega Highway (SR-74).*

The second to the last sentence in the discussion of Water Reservoir Facilities on page 2-16 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> Additionally, construction *was completed in 2016* ~~initiated in 2015~~ on one 3.0-MG domestic water reservoir and one 2.0-MG recycled water reservoir, both of which are also located in Chiquita Canyon, south of Tesoro High School (SMWD 2015a).

Section 2.8.2, La Pata Avenue Gap Closure and Camino Del Rio Extension Project

The second to the last sentence of the second paragraph in Section 2.8.2 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deleted text):

> This phase ~~is expected to be~~ *was* completed in ~~fall~~ *summer* 2016. The second phase will widen the existing La Pata Avenue with one additional travel lane in each direction between Ortega Highway and just south of Vista Montana. This phase ~~is expected to~~ start*ed in summer* 2016 and is projected to be completed in 2017 or 2018.

Section 4.3, Hydrology and Water Quality

The following changes to the Standard Conditions, provided in Section 4.3.7, reflect County initiated revisions to the Draft PEIR and are designed to ensure the conditions match the current Conditions of Approval. Additionally, SC HWQ-5 has been added. The following changes are hereby revised incorporated into the Final PEIR (*red italics* shows the additional text and ~~red strikethrough~~ show the deleted text):

SC HWQ-1 Prior to issuance of grading or building permits, drainage studies that demonstrate the following shall be submitted to and approved by Manager, Permit Services:

1. All surface runoff and subsurface drainage shall be directed to the nearest acceptable drainage facility, as determined by the Manager, *Permit Services* ~~of Building & Safety, or his/her designee~~.
2. Drainage facilities discharging onto adjacent property shall be designed to imitate the manner in which runoff is currently produced from the site and in a manner meeting the satisfaction of the Manager, Permit Services. Alternatively, the ~~County or its designee~~ *Project applicant* may obtain a drainage acceptance and maintenance agreement, suitable for recordation, from the owner of said adjacent property. All drainage facilities must be consistent with the County of Orange Grading Ordinance and Local Drainage Manual (County of Orange Standard Condition D02).

SC HWQ-2 Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the County's National Pollutant Discharge

Elimination System (NPDES) Implementation Program in a manner meeting the satisfaction of the Manager, OC Inspection*, including:*

- *Demonstrate that all structural Best Management Practices (BMPs) described in the BMP Exhibit from the project's approved WQMP have been implemented, constructed and installed in conformance with approved plans and specifications.*
- *Demonstrate that the applicant has complied with all non-structural BMPs described in the project's WQMP.*
- *Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs (the O&M Plan shall become an attachment to the WQMP.*
- *Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the initial occupants.*
- *Agree to pay for a Special Investigation from the County of Orange for a date twelve (12) months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan.*
- *Demonstrate that the applicant has RECORDED one of the following:*
    1. *The CC&R's (that must include the approved WQMP and O&M Plan) for the project's Home Owner's Association;*
    2. *A water quality implementation agreement that has the approved WQMP and O&M Plan attached; or*
    3. *The final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.*

(County of Orange Standard Condition WQ02).

SC HWQ-4 Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Intake, to demonstrate compliance with the County's NPDES Implementation Program and State water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, *etc.* ~~and other construction materials~~ shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion, or dispersion. The ESCP shall also describe how the ~~County or its designee~~ *applicant* will ensure that all BMPs will be maintained during construction of any future public rights-of-way. The ESCP shall be updated as needed to address the changing circumstances of the Project site. A copy of the current ESCP shall be kept at the Project site and be available for County review on request (County of Orange Standard Condition WQ05).

SC HWQ-5 *Prior to the issuance of any grading or building permits, the applicant shall submit for review and approval by the Manager, Permit Services, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. The applicant shall utilize the Orange County Drainage Area Management Plan*

(DAMP), Model WQMP, and Technical Guidance Manual for reference, and the County's WQMP template for submittal. This WQMP shall include the following:

- *Detailed site and project description*
- *Potential stormwater pollutants*
- *Post-development drainage characteristics*
- *Low Impact Development (LID) BMP selection and analysis*
- *Structural and Non-Structural source control BMPs*
- *Site design and drainage plan (BMP Exhibit)*
- *GIS coordinates for all LID and Treatment Control BMPs*
- *Operation and Maintenance (O&M) Plan that (1) describes the long-term operation and maintenance requirements for BMPs identified in the BMP Exhibit; (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced BMPs; and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced BMPs.*

The BMP Exhibit from the approved WQMP shall be included as a sheet in all plan sets submitted for plan check and all BMPs shall be depicted on these plans. Grading and building plans must be consistent with the approved BMP exhibit. (County of Orange Standard Condition WQ01).

Section 4.4, Land Use

Exhibit 4.4-4, Subarea Boundaries and Affordable Housing Site Locations, has been modified to include the following text, which was provided on the other exhibits in the Draft PEIR that depicted the Planning Areas. The revised exhibit is provided at the end of Section 3.1 (*red italics* shows the additional text):

Note: The Southern Subregion Habitat Conservation Plan limits the amount of gross acres of development in Planning Area 4 and Planning Area 8. Of the 1,127 acres in Planning Area 4, Ranch Plan development is limited to 515 acres, with an additional 175 acres allowed for reservoir use by the Santa Margarita Water District. Planning Area 8 is 1,349 acres; however, development is limited to 500 acres.

Section 4.5, Noise

The following changes to the Standard Conditions, provided in Section 4.5.7, reflect County initiated revisions to the Draft PEIR and are designed to ensure the conditions match the current Conditions of Approval. The following changes are hereby revised incorporated into the Final PEIR (*red italics* shows the additional text and ~~red strikethrough~~ show the deleted text):

SC NOI-2 A. Prior to the issuance of any grading permits, the Project ~~Applicant~~ *proponent* shall produce evidence acceptable to the Manager, Permit Services, that:

The remainder of the standard condition remains unchanged.

SC NOI-3 The ~~Project~~ Applicant shall sound-attenuate all residential lots and dwellings against present and projected noise (which shall be the sum of all noise impacting the project) so that the composite interior standard of 45 dBA CNEL

for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas is not exceeded. The applicant shall provide a report prepared by a County-certified acoustical consultant, which demonstrates that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, as follows:

A. Prior to the recordation of a subdivision map or prior to the issuance of grading permits, as determined by the Manager, ~~Building~~ Permit Services, the applicant shall submit an acoustical analysis report to the Manager, ~~Building~~ Permit Services, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy Condition B below.

B. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, ~~Building~~ Permit Services, for approval along with satisfactory evidence*,* ~~that~~ *which* indicates that the sound-attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

C. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, ~~Building~~ Permit Services (County of Orange Standard Condition N01).

SC NOI-4 Prior to the ~~issuance of any certificates of use and occupancy~~ *final inspection approval*, the applicant shall perform field testing in accordance with Title 24 Regulations to verify compliance with FSTC and FIIC standards if determined necessary by the Manager, ~~Building Inspection~~ *Permit* Services. In the event such a test was previously performed, the applicant shall provide satisfactory evidence and a copy of the report to the Manager, ~~Building Inspection~~ *Permit* Services, as a supplement to the previously required acoustical analysis report (County of Orange Standard Condition N09).

SC NOI-5 Prior to the issuance of any building or grading permits, the applicant shall obtain the approval of the Manager, ~~Building Inspection~~ *Permit* Services, of an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by the Project during its operation shall be controlled in compliance with Orange County Codified Ordinance, Division 6 (Noise Control). The report shall be prepared under the supervision of a County-certified Acoustical Consultant and shall describe the noise generation potential of the project during its operation and the noise mitigation measures, if needed, which shall be included in the plans and specifications of the project to assure compliance with Orange County Codified Ordinance, Division 6 (Noise Control) (County of Orange Standard Condition N08).

Section 4.7 Public Services

On page 4.7-1, the first sentence under the heading "Secured Fire Protection Agreement" is hereby modified to read as follows (*red italics* shows the additional text):

> Development of the Ranch Plan Planned Community (the Ranch Plan) is subject to certain requirements imposed by the County, including provisions relating to fire protection services. As part of these requirements, Ranch*o* Mission Viejo (RMV) entered into two separate Secured Fire Protection Agreements (SFPA) with the Orange County Fire Authority (OCFA).

Page 4.7-3, starting at the third sentence of the first paragraph, is hereby modified to read as follows (*red italics* shows the additional text):

> According to the SFPA, Planning Areas 3, 5, and 8 will each house a station in the future; each station will be built concurrently with its respective Planning Area. *The SFPA does have provisions for interim fire protection facilities to serve new development within the Ranch Plan area prior to construction of permanent fire stations serving the relevant portions of the Ranch Plan area. The SFPA specifies that OCFA and RMV shall meet for the purpose of discussing potential solutions and strategies for addressing interim fire protection needs should the new stations not be fully staffed and operational prior to residential occupancy.*

Section 4.8, Recreation

The text of the last sentence on page 4.8-4 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ shows the deleted text):

> The San Juan Creek *Class I* Bikeway is *shown* ~~also~~ on the Orange County Transportation Authority's (OCTA's) *Commuter Bikeway Strategic Plan (2009) and the District 5 Bikeways Strategy Report (March 2015)* ~~for regional bikeways~~.

The following text has been added at the end of the first paragraph on page 4.8-6 of the Recreation section:

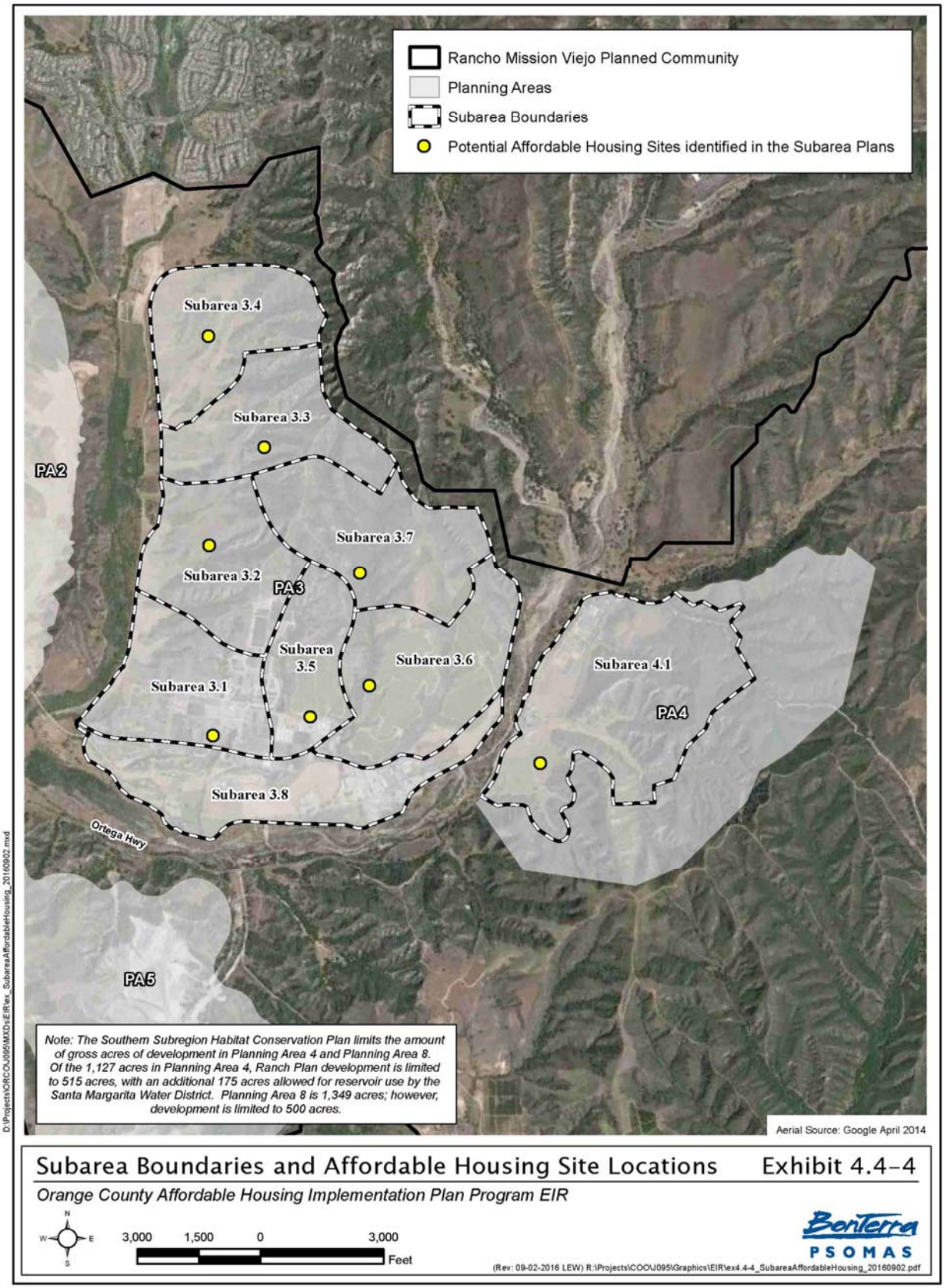
> Given the "parks rich" character of the community, the Project (all development scenarios) would not result in an increase*d* use of existing *and planned* neighborhood *parks* or *the regional parks or* other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *The Orange County General Plan's Housing Element also exempts affordable housing projects from the payment of in-lieu park fees.*

Section 4.9, Transportation

The following text is hereby added after the second sentence in the Mass Transit discussion on page 4.9-85 (*red italics* shows the additional text; strike-out and underlined text reflects the change to the response to reflect the comments in the OCTA November 8, 2016 comment letter):

> The closest transit service is in the vicinity of Ortega Highway and Rancho Viejo Road (near I-5)*; however, this line will be discontinued starting in October 2016*. *Bus Route 91*~~,~~

~~also~~ in San Juan Capistrano~~, will~~ may provide ~~similar~~ connections~~,~~ with stops at the San Juan Capistrano Train Depot and at Mission San Juan Capistrano. There ~~still~~ are currently no bus routes that would extend east to the Ranch Plan area. ~~However, to the north, Bus Route 82 provides a connection at Crown Valley Parkway and Antonio Parkway in Ladera Ranch. Starting in October 2016,~~ In the future, the Community-Based Transit/Circulators Program, known as RanchRide, will operate through a public-private partnership with the County of Orange with funding from OCTA's Measure M2 Project V program. As the program develops, more information about schedules will become available.


Rancho Mission Viejo Planned Community
Planning Areas
Subarea Boundaries
Potential Affordable Housing Sites identified in the Subarea Plans
Subarea 3.4
Subarea 3.3
PA2
Subarea 3.7
Subarea 3.2
PA3
Subarea 3.5
Subarea 3.6
Subarea 3.1
Subarea 4.1
PA4
Subarea 3.8
Ortega Hwy
PA5
Note: The Southern Subregion Habitat Conservation Plan limits the amount of gross acres of development in Planning Area 4 and Planning Area 8. Of the 1,127 acres in Planning Area 4, Ranch Plan development is limited to 515 acres, with an additional 175 acres allowed for reservoir use by the Santa Margarita Water District. Planning Area 8 is 1,349 acres; however, development is limited to 500 acres.
Aerial Source: Google April 2014
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Subarea Boundaries and Affordable Housing Site Locations
Exhibit 4.4-4
Orange County Affordable Housing Implementation Plan Program EIR
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Attachment A

Traffic Generation by Planning Area Tables from the Draft PEIR's Traffic Report (Appendix E) and from the Traffic Report for the Planning Areas 3 and 4 Master Area Plan and Subarea Plans

Table 2-1 Land Use and Trip Generation Summary – Ranch Plan Planned Community at Buildout

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		Inbound	Outbound	Total	Inbound	Outbound	Total	
Planning Area 1 (PA 1)								
All Age Detached Residential	384 DU	73	215	288	246	142	388	3,675
All Age Attached Residential	303 DU	45	148	193	158	91	249	2,457
Age Qualified Detached Residential	116 DU	9	16	25	19	13	32	430
Age Qualified Attached Residential	284 DU	14	23	37	28	17	45	988
Apartments	200 DU	20	82	102	80	44	124	1,330
General Commercial	95 TSF	58	37	95	174	181	355	4,079
Office	30 TSF	41	6	47	8	37	45	330
Park	11 Acres	0	0	0	0	0	0	25
CCRC	480 Units	67	34	101	82	77	159	1,800
Equestrian Facilities	250 Stalls	23	10	33	33	38	71	570
Soccer Complex	6 Fields	4	4	8	86	38	124	428
PA 1 Trip Generation		354	575	929	914	678	1,592	16,112
Planning Area 2 (PA 2)								
All Age Detached Residential	978 DU	186	548	734	626	362	988	9,359
All Age Attached Residential	475 DU	71	233	304	247	143	390	3,852
Age Qualified Detached Residential	721 DU	58	101	159	115	79	194	2,675
Age Qualified Attached Residential	238 DU	12	19	31	24	14	38	828
Apartments	288 DU	29	118	147	115	63	178	1,915
School	1,200 Students	330	264	594	90	96	186	1,746
Urban Activity Center	500 TSF	305	195	500	915	950	1,865	21,470
Specialty Retail	25 TSF	0	0	0	30	38	68	1,108
PA 2 Trip Generation		991	1,478	2,469	2,162	1,745	3,907	42,953
Planning Areas 3 and 4 (PA 3 and PA 4)								
All Age Detached Residential	2,990 DU	568	1,674	2,242	1,914	1,106	3,020	28,614
All Age Attached Residential	2,010 DU	302	985	1,287	1,045	603	1,648	16,301
Age Qualified Detached Residential	2,500 DU	200	350	550	400	275	675	9,275
School	2,600 Students	650	520	1,170	182	208	390	3,354
Neighborhood Commercial	145 TSF	77	49	126	254	276	530	5,817
Business Park	305 TSF	363	64	427	101	284	385	3,794
Urban Activity Center	2,950 TSF	2,006	384	2,390	738	2,036	2,774	26,580
PA 3 and PA 4 Trip Generation		4,166	4,026	8,192	4,634	4,788	9,422	93,735

Table 2-1 Land Use and Trip Generation Summary – Ranch Plan Planned Community at Buildout (continued)

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		Inbound	Outbound	Total	Inbound	Outbound	Total	
Planning Area 5 (PA 5)								
PA 5 Trip Generation		308	569	877	355	382	737	7,079
Planning Area 8 (PA 8)								
All Age Detached Residential	300 DU	38	187	225	178	85	263	2,745
All Age Attached Residential	200 DU	21	110	131	101	46	147	1,536
Age Qualified Detached Residential	600 DU	37	111	148	122	77	199	2,098
Age Qualified Attached Residential	300 DU	18	56	74	61	39	100	1,049
General Commercial	100 TSF	188	89	277	203	250	453	4,549
R&D/Business Park	1,000 TSF	682	157	839	293	736	1,029	9,700
Golf Course	258 Acres	37	12	49	25	47	72	697
Resort Hotel	250 Rooms	61	18	79	38	74	112	1,085
PA 8 Trip Generation		1,082	740	1,822	1,021	1,354	2,375	23,459
Total								
Ranch Plan Planned Community Total Trip Generation		6,901	7,388	14,289	9,086	8,947	18,033	183,338

Abbreviations: ADT – average daily trips
CCRC – continuing care retirement community
DU – dwelling units
TSF – thousand square feet

Table A- 1 EIR Trip Generation Summary

TRIPENDS BY LU TYPE

LU	AMOUNT	UNITS	AM PEAK HOUR				PM PEAK HOUR				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
Single Family - Detached	4,212	DU	528	2,634	3,162	8.2%	2,495	1,192	3,687	9.6%	38,544
Single Family - Attached	2,808	DU	293	1,548	1,841	8.5%	1,423	641	2,064	9.6%	21,560
Senior Housing	5,360	DU	330	991	1,321	7.0%	1,092	688	1,780	9.5%	18,739
Senior Apartments	640	DU	39	119	158	7.1%	130	83	213	9.5%	2,237
Apartments	980	DU	89	445	534	8.4%	416	192	608	9.6%	6,335
General Commercial	750	TSF	1,413	663	2,076	6.1%	1,522	1,879	3,401	10.0%	34,118
Specialty Retail	230	TSF	377	172	549	6.1%	394	499	893	10.0%	8,936
R&D/Business Park	3,660	TSF	2,496	573	3,069	8.6%	1,074	2,692	3,766	10.6%	35,501
Office	560	TSF	466	115	581	8.3%	223	516	739	10.5%	7,013
Golf Course	1,057	ACRES	153	47	200	7.0%	104	189	293	10.3%	2,854
Elementary/Middle School	4,200	STU.	540	52	592	11.2%	144	249	393	7.4%	5,284
High School	900	STU.	116	11	127	11.2%	31	53	84	7.4%	1,132
Resort Hotel	250	ROOMS	61	18	79	7.3%	38	74	112	10.3%	1,085
TOTAL	**Total**		**6,901**	**7,388**	**14,289**	**7.8%**	**9,086**	**8,947**	**18,033**	**9.8%**	**183,338**

INTERNAL/EXTERNAL TRIPENDS BY LU CATEGORY

LAND USE	Int/Ext TYPE	LU	AM PEAK HOUR				PM PEAK HOUR				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
Residential	Internal	14,000	258	2,235	2,493	9.5%	1,694	550	2,244	8.6%	26,225
	External		1,021	3,502	4,523	7.4%	3,862	2,246	6,108	10.0%	61,190
	Total		1,279	5,737	7,016	8.0%	5,556	2,796	8,352	9.6%	87,415
Percent Internal Tripends		DU	20.2%	39.0%	35.5%		30.5%	19.7%	26.9%		30.0%
Commercial/School	Internal	1,000	1,628	175	1,803	4.3%	1,699	2,111	3,810	9.1%	42,050
	External		818	723	1,541	20.8%	392	569	961	13.0%	7,420
	Total		2,446	898	3,344	6.8%	2,091	2,680	4,771	9.6%	49,470
Percent Internal Tripends		TSF	66.6%	19.5%	53.9%		81.3%	78.8%	79.9%		85.0%
Business	Internal	4,220	598	73	671	5.1%	292	1,025	1,317	10.1%	13,100
	External		2,578	680	3,258	9.8%	1,147	2,446	3,593	10.8%	33,353
	Total		3,176	753	3,929	8.5%	1,439	3,471	4,910	10.6%	46,453
Percent Internal Tripends		TSF	18.8%	9.7%	17.1%		20.3%	29.5%	26.8%		28.2%
Total	Internal		2,484	2,483	4,967	6.1%	3,685	3,686	7,371	9.1%	81,375
	External		4,417	4,905	9,322	9.1%	5,401	5,261	10,662	10.5%	101,963
	Total		6,901	7,388	14,289	7.8%	9,086	8,947	18,033	9.8%	183,338
Percent Internal Tripends			36.0%	33.6%	34.8%		40.6%	41.2%	40.9%		44.0%

Source: Ranch Plan EIR Traffic Study, Tables 3-1 and 3-2

Table 1 Trip Generation and Land Use Summary for PA's 3 and 4

LU Type	Amount	Trip Type	AM Peak Hour				PM Peak Hour				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
SFD DU	2,990 DU	Rate	0.19	0.56	0.75		0.64	0.37	1.01		9.57
		Trips	568	1,674	2,242	7.8%	1,914	1,106	3,020	10.6%	28,614
SFA DU	2,010 DU	Rate	0.15	0.49	0.64		0.52	0.30	0.82		8.11
		Trips	302	985	1,287	7.9%	1,045	603	1,648	10.1%	16,301
AQ Residential	2,500 DU	Rate	0.08	0.14	0.22		0.16	0.11	0.27		3.71
		Trips	200	350	550	5.9%	400	275	675	7.3%	9,275
Commercial	145 TSF	Rate	0.53	0.34	0.87		1.75	1.90	3.65		40.12
		Trips	77	49	126	2.2%	254	276	530	9.1%	5,817
Business Park	305 TSF	Rate	1.19	0.21	1.40		0.33	0.93	1.26		12.44
		Trips	363	64	427	11.3%	101	284	385	10.1%	3,794
UAC	2,950 TSF	Rate	0.68	0.13	0.81		0.25	0.69	0.94		9.01
		Trips	2,006	384	2,390	9.0%	738	2,036	2,774	10.4%	26,580
Schools	2,600 STU	Rate	0.25	0.20	0.45		0.07	0.08	0.15		1.29
		Trips	650	520	1,170	34.9%	182	208	390	11.6%	3,354
Total			**4,166**	**4,026**	**8,192**	**8.7%**	**4,634**	**4,788**	**9,422**	**10.1%**	**93,735**

LU Category	Amount	Units	AM Peak Hour				PM Peak Hour				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
MR Residential	5,000	DU	870	2,659	3,529	7.9%	2,959	1,709	4,668	10.4%	44,915
AQ Residential	2,500	DU	200	350	550	5.9%	400	275	675	7.3%	9,275
Comm./UAC	3,400	TSF	2,446	497	2,943	8.1%	1,093	2,596	3,689	10.2%	36,191
Schools	2,600	Students	650	520	1,170	34.9%	182	208	390	11.6%	3,354
TOTAL			**4,166**	**4,026**	**8,192**	**8.7%**	**4,634**	**4,788**	**9,422**	**10.1%**	**93,735**

Abbreviations: SFD – Single Family Detached Residential
SFA – Single Family Attached Residential
AQ – Age Qualified Residential (age restricted housing)
UAC – Urban Activity Center
Comm. – Commercial Shopping Center
MR – Market Rate Housing (comprising Single Family Detached and Attached Housing)
DU – Dwelling Units

Source: ITE (9th Ed.) Trip Rates; refer to Appendix A (Table A-5 for detailed information).

The peak hour trips by direction are also shown here, representing the key measure for traffic analysis purposes, since traffic impacts are identified using peak hour intersection performance.

Responses to Comments on Program Environmental Impact Report 623

Orange County Affordable Housing Implementation Plan—Ranch Plan

IP# 15-157

SCH No. 2015051062

Prepared for | County of Orange
300 N. Flower Street
Santa Ana, California 92702-4048

Prepared by | BonTerra Psomas
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Santa Ana, California 92707

October 2016

Draft EIR Circulated: July 15, 2016
Final EIR Certified: November 8, 2016

Responses to Comments on Program Environmental Impact Report 623 Orange County Affordable Housing Implementation Plan—Ranch Plan

IP# 15-157

State Clearinghouse Number 2015051062

Prepared for:
COUNTY OF ORANGE
OC Public Works
300 North Flower Street
Santa Ana, California 92702-4048
Contact: Rose Fistrovic

October 2016

TABLE OF CONTENTS

ATTACHMENTS

1.0 INTRODUCTION AND SUMMARY

1.1 INTRODUCTION

The purpose of this document is to present public comments and responses to those comments received on Draft Program Environmental Impact Report (PEIR) 623 for the Orange County Affordable Housing Implementation Plan—Ranch Plan (State Clearinghouse Number 2015051062). The project site is located in unincorporated Orange County. The County of Orange is the Lead Agency on the project.

The Draft PEIR was circulated for a 45-day public review and comment period beginning July 15, 2016, and ending August 29, 2016. Written responses have been prepared to all comments received during the comment period and are included in this document.

As required by Section 15132(d) of the California Environmental Quality Act (CEQA) Guidelines, this Final PEIR responds to comments regarding "significant environmental points raised in the review and consultation process". This Response to Comments document provides revisions and clarifications to the Draft PEIR, as appropriate. In keeping with the requirement of Section 21092.5 of the *California Public Resources Code,* which requires the lead agency to provide a copy of the written response to each public agency that commented on the Draft PEIR, the County of Orange will send copies of the Responses to Comments not only to the public agencies that commented, but also to all parties that commented on the Draft PEIR. This will be done at least ten days prior to the Board of Supervisors certifying the Final PEIR.

The Final PEIR, which has been prepared electronically, consists of four folders. This includes (1) the Draft PEIR; (2) the Technical Appendices; (3) this Responses to Comments document; and (4) the Mitigation Monitoring and Reporting Program. In addition, the Final PEIR includes the related staff reports and other information contained in the administrative record.

The Responses to Comments document is divided into three sections. Section 1 is this introduction. Section 2 provides a list of commenters and copies of the letters received with each comment bracketed and numbered, followed by the responses to the comments. Section 3 provides all the changes made to the Draft PEIR as a result of the responses to comments (note, these changes are also identified in the responses). The changes to the PEIR are shown in *red italics* text and deletions are shown in ~~red strikethrough~~ text. In addition, Attachment A provides some supporting documentation to one of the responses.

None of the comments received identify significant environmental points. Additionally, the clarifications and revisions to the PEIR do not reflect a substantial change to the Project description or identify a new impact or intensification of an impact already identified in the Draft PEIR.

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2.0 RESPONSES TO COMMENTS

2.1 LIST OF COMMENTERS

The following is the listing of comments received on the PEIR. After the name of each commenter is a notation in parentheses. This notation is used to index the responses provided later in this section. The comment letters are also provided in this section.

Commenter	Date of Correspondence	Page for Comment	Page for Response
State Agencies			
California Highway Patrol (CHP)	August 24, 2016	2-2	2-3
Governor's Office of Planning and Research (OPR)	August 30, 2016	2-4	2-7
California Department of Transportation (CT)	August 31, 2016	2-8	2-11
Local Agencies			
Orange County Fire Authority (OCFA)	July 28, 2016	2-29	2-30
Orange County Transportation Authority (OCTA)	August 29, 2016	2-33	2-36
Orange County Transportation Authority (OCTA)[a]	November 8, 2016	2-35	2-36
Companies			
Rancho Mission Viejo (RMV)	August 29, 2016	2-39	2-41

[a] Comment provided by OCTA on the preliminary Responses to Comments document distributed before the Board of Supervisors' meeting on the Project. The requested revisions have been made to the response to the original OCTA-5 comment, which begin on page 2-37. This also changes the errata information, which is provided on page 3-6.

2.2 COMMENTS AND RESPONSES RECEIVED ON DRAFT PEIR 623

The following section contains the comment letters received for the Draft PEIR with each comment bracketed and numbered. Immediately following the comment letter are the responses to the comments.

State of California—Transportation Agency EDMUND G. BROWN Jr., Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
Capistrano Area
32951 Camino Capistrano
(949) 487-4000
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

clear 8/29/16 E

Governor's Office of Planning & Research

AUG 29 2016

STATE CLEARINGHOUSE

August 24, 2016

File No.: 690.13303.13572

State Clearing House
1400 Tenth Street, Room 121
Sacramento, CA. 95814

The Capistrano Area Office of the California Highway Patrol recently received a "Notice of Completion" Environmental Impact Report for the proposed Orange County Affordable Housing Implementation Plan-Ranch Plan, State Clearing House (SCH) #2015051062. After our review, we have concerns with the potential impact this project could have on traffic congestion.

Our concerns relate to the proposed construction of additional dwelling units within the Rancho Mission Viejo Planned Community project. The project is located in close proximity to State Route 74 (Ortega Highway), and Antonio Parkway. State Route 74 is a major arterial route that connects Riverside County with Interstate 5 in Orange County. Antonio Parkway is a major arterial highway within the unincorporated community of Ladera Ranch. State Route 74 and Antonio Parkway will be the main route of travel to Interstate 5 for the future residents within this project. Currently, State Route 74 has a chokepoint at the eastern edge of the San Juan Capistrano City Limits. The roadway narrows from two traffic lanes to one traffic lane in each direction. This project could have a negative impact on The Capistrano Area's operations due to increased traffic congestion, which could lead to a potential increase in traffic collisions within our jurisdiction. CHP-1

If you have any questions regarding these concerns, please contact Lieutenant D. Joslin at (949) 487-4000

Sincerely,

J. FONSECA, Captain
Commander

cc: Border Division
Special Projects Section

Safety, Service, and Security *An Internationally Accredited Agency*

Response to the California Highway Patrol
Comment Letter Dated August 24, 2016

CHP-1 Your concern regarding increased traffic on the portion of Ortega Highway (State Route [SR] 74) in the City of San Juan Capistrano that narrows to two lanes (one lane in each direction) is acknowledged. As discussed in Section 4.9, Transportation/Traffic, the Project is expected to have minimal effect on this segment of roadway. The Intersection Capacity Utilization (ICU) values and Highway Capacity Manual (HCM) delay times for intersections on each side of the narrow section show minimal changes when compared to the No Project Alternative (See Tables 4.9-7 through 4.9-18).

It should also be noted that roadway improvements are planned for this area. As shown on Exhibits 4.9-3 and 4.9-4, the 2035 Circulation System, with and without the SR-241 extension, assume the two lane segment of SR-74 will be widened to four lanes. It is also listed in Table 4.9-6, Background Circulation System Improvements. Since the traffic analysis in the Program Environmental Impact Report (PEIR) evaluates the Alternative Baseline and the 2035 timeframes this improvement is identified as being part of the 2035 circulation network. However, this is not to imply that the improvement will not be constructed until 2035, rather just a precise timeframe for the improvements has not been established. The California Department of Transportation (Caltrans) has completed the CEQA documentation for the widening of the two-lane segment of Ortega Highway through the City of San Juan Capistrano.[1] Caltrans[2] is working with the Orange County Transportation Authority (OCTA) and the City of San Juan Capistrano to identify funding sources for the improvements. Anticipated funding sources include, but are not limited to, the Measure M2 Program and the South County Road Improvement Program (SCRIP). Pursuant to Standard Condition 4.9-1, the Project would contribute to SCRIP.

Additionally, Rancho Mission Viejo (RMV) is currently grading Los Patrones Parkway on the eastern edge of Planning Area 2, which will provide an additional north-south roadway within the Ranch Plan compared to the current circulation network. As discussed in Section 2.6.3 (page 2-16) of the Draft PEIR, this roadway will extend from Oso Parkway at the intersections of the on- and off-ramps from the existing SR-241 south to Cow Camp Road. Grading for the roadway has been initiated and the roadway is expected to be open in approximately 2018.

[1] California Department of Transportation (Caltrans). 2016 (September 6). Personal communication. Phone call between S. Deshpande (Caltrans, District 12) and K. Brady (BonTerra Psomas).

[2] California Department of Transportation (Caltrans). 2016 (September 28). Personal communication. Phone call between S. Deshpande (Caltrans, District 12) and K. Brady (BonTerra Psomas).

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

August 30, 2016

Bea Bea Jimenez
Orange County
300 N. Flower Street
Santa Ana, CA 92703

Subject: Orange County Affordable Housing Implementation Program--Ranch Plan (IP# 15-157)
SCH#: 2015051062

Dear Bea Bea Jimenez:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 29, 2016, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

OPR-1

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH#	**2015051062**
Project Title	Orange County Affordable Housing Implementation Program--Ranch Plan (IP# 15-157)
Lead Agency	Orange County
Type	**EIR** Draft EIR
Description	As part of the overall approval process for the Ranch Plan Planned Community, an Affordable Housing Implementation Agreement (AHIA) was which requires the landowner to provide the County with developable land at various sites within the Ranch Plan Planned Community ranging in size from 2 to 10 acres for rental units for low and very-low income households. The Program EIR will address three development alternatives providing a range in the number of units from 555 units to 1,110 units.

Lead Agency Contact

Name	Bea Bea Jimenez		
Agency	Orange County		
Phone	714-667-8852	***Fax***	
email			
Address	300 N. Flower Street		
City	Santa Ana	***State*** CA	***Zip*** 92703

Project Location

County	Orange		
City	Orange		
Region			
Lat / Long			
Cross Streets	Orange hwy and Antonio Parkway within the Ranch Plan Planned Community		
Parcel No.	multiple		
Township	***Range***	***Section***	***Base***

Proximity to:

Highways	SR 74, 241
Airports	
Railways	
Waterways	San Juan Creek, Cristianitos Creek
Schools	San Juan Hills HS
Land Use	Z: Planned Community GP: Residential

Project Issues	Air Quality; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects; Other Issues
Reviewing Agencies	Resources Agency; Department of Fish and Wildlife, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 12; Regional Water Quality Control Board, Region 9; Native American Heritage Commission; Department of Housing and Community Development

Date Received 07/15/2016 ***Start of Review*** 07/15/2016 ***End of Review*** 08/29/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

State of California—Transportation Agency EDMUND G. BROWN Jr., Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
Capistrano Area
32951 Camino Capistrano
(949) 487-4000
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

clear 8/29/16 E

Governor's Office of Planning & Research

AUG 29 2016

STATE CLEARINGHOUSE

August 24, 2016

File No.: 690.13303.13572

State Clearing House
1400 Tenth Street, Room 121
Sacramento, CA. 95814

The Capistrano Area Office of the California Highway Patrol recently received a "Notice of Completion" Environmental Impact Report for the proposed Orange County Affordable Housing Implementation Plan-Ranch Plan, State Clearing House (SCH) #2015051062. After our review, we have concerns with the potential impact this project could have on traffic congestion.

Our concerns relate to the proposed construction of additional dwelling units within the Rancho Mission Viejo Planned Community project. The project is located in close proximity to State Route 74 (Ortega Highway), and Antonio Parkway. State Route 74 is a major arterial route that connects Riverside County with Interstate 5 in Orange County. Antonio Parkway is a major arterial highway within the unincorporated community of Ladera Ranch. State Route 74 and Antonio Parkway will be the main route of travel to Interstate 5 for the future residents within this project. Currently, State Route 74 has a chokepoint at the eastern edge of the San Juan Capistrano City Limits. The roadway narrows from two traffic lanes to one traffic lane in each direction. This project could have a negative impact on The Capistrano Area's operations due to increased traffic congestion, which could lead to a potential increase in traffic collisions within our jurisdiction.

If you have any questions regarding these concerns, please contact Lieutenant D. Joslin at (949) 487-4000

Sincerely,

J. FONSECA, Captain
Commander

cc: Border Division
Special Projects Section

Safety, Service, and Security *An Internationally Accredited Agency*

Response to the Governor's Office of Planning and Research
Comment Letter Dated August 30, 2016

OPR-1 The comment the letter identified the agencies that received the document through the State Clearinghouse and transmitted the letter submitted by the California Highway Patrol (CHP). The CHP letter has been responded to above. No further response to this comment letter is required.

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3347 MICHELSON DRIVE, SUITE 100
IRVINE, CA 92612-8894
PHONE (949) 724-2086
FAX (949) 724-2592
TTY 711
www.dot.ca.gov

Serious drought.
Help save water!

August 31, 2016

File: IGR/CEQA
SCH#: 2015051062
12-ORA-2016-00078
SR-5, 73, 74, 241

Ms. Bea Bea Jimenez
Orange County Public Works/Planning
300 N. Flower Street
Santa Ana, CA 92703

Ms. Jimenez:

Thank you for including the California Department of Transportation (Caltrans) in the review of the Draft Program Environmental Impact Report (Draft PEIR) for the proposed Addendum Two to the Orange County Affordable Housing Implementation Program (IP #15-157) for the Ranch Plan Planned Community (SCH #2015051062). The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities of infill, conservation, and efficient development. To ensure a safe, efficient, and reliable transportation system, we encourage early consultation and coordination with local jurisdictions and project proponents on all development projects that utilize the multimodal transportation network.

As part of the overall approval process for the Ranch Plan Planned Community/Rancho Mission Viejo (RMV), the Affordable Housing Implementation Agreement (AHIA) "requires that RMV provide the County with various sites that are between 2 and 10 acres in size, for a total of 60 gross acres of property (the 'Dedicated Lands'), for the development of affordable housing for households qualifying as low or very-low income households, as defined in the Orange County Housing Element. The Affordable Housing developed on property provided pursuant to the AHIA is not counted against the 14,000 dwelling units approved as part of the Ranch Plan; however, no additional acreage would be devoted to development. The Project would be within the graded development areas of the Ranch Plan." The previously approved Addendum One of the AHIA for the Ranch Plan authorized development for affordable housing in Planning Areas 1 and 2 of the Ranch Plan. RMV is subject to a remaining Dedicated Lands obligation of 44.4 gross acres (credits) required under the AHIA. The proposed Addendum Two to the AHIA Draft PEIR addresses three development scenarios (alternatives allowing between 555 and 1,110 dwelling units) for the potential environmental impacts associated with the development of affordable housing in Planning Areas 3, 4, 5, and 8 of the Ranch Plan. This proposed project is located in unincorporated southern Orange County in proximity to Interstate 5 (I-5), Ortega Highway/State Route 74 (SR-74), SR-241, and SR-73. Caltrans District 12 is a commenting agency at this time, and has the following comments:

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Ms. Jiminez, Orange County Public Works
August 31, 2016
Page 2

- Figure 2-1 & 2-2 (Project Trip Distribution exhibits) of the Traffic Report assumes that only 1% of the plan (Alternatives 1, 2, 3) traffic will be on Ortega Highway east of Antonio Parkway/La Pata Avenue. Caltrans current traffic volumes (2014) in the following table below for Ortega Highway (SR-74) shows that the volumes goes down 1/3 after Conrock Entrance, east of the development. Although this shows it's only 35% of the volumes of what it was at Conrock Entrance, it is more than 1% at this time. 2015 traffic volumes have remained around the same percentage.

		Back AADT	Ahead AADT
PM R2.154	Ranch Viejo Way/Santa Margarita	41600	37200
PM 5.242	Conrock Entrance	31300	31300
PM 8.13	Trough Creek Bridge	11200	11700
PM 9.25	Lucas Canyon Road	11700	10200
PM 16.599	Orange/Riverside County Line	10600	
http://www.dot.ca.gov/trafficops/census/docs/2014_aadt_volumes.pdf			

- The Trip Distribution patterns for the affordable housing project land uses were determined based on the South County Sub-Area Model, Version 3.4 (SCSAM 3.4)/OCTAM, and "assumes full development of the Ranch Plan Planned Community, including the land uses and roadway infrastructure on the Ranch Plan Planned Community site as well as South County Roadway Improvement Program (SCRIP) improvements that are planned." The 1% trip distribution on Ortega Highway east of Antonio Parkway/La Pata Avenue assumes everyone will only be going westbound, and no one will be going eastbound on Ortega Highway. Since the project will affect both directions, further discussion about the eastbound direction of Ortega Highway (SR-74) is needed. Please clarify.

CT-1

- There is a recent Caltrans/State emphasis toward reduction of Vehicle Miles Traveled (VMT) and increased transit use. Although the Orange County Affordable Housing Implementation Program for the Ranch Plan Planned Community has no significant direct or cumulative impacts on State transportation facilities, Caltrans recommends that the project coordinate with other community strategies to reduce VMT such as the provision of a community shuttle service, park and ride facilities, bicycle access, or other enhancements which can improve mobility and reduce VMT on the local and regional transportation system. Please continue to coordinate with OCTA to discuss/determine opportunities to enable residents in this community to choose alternative modes of transportation.

CT-2

- Any hauling of materials should not occur during A.M. and P.M. peak periods of travel on State facilities during construction of the proposed project. All vehicle loads should be covered so that materials do not blow over or onto the Caltrans Right-of-Way (R/W).

CT-3

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Ms. Jiminez, Orange County Public Works
August 31, 2016
Page 3

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Leila Carver at (949) 756-7827.

Sincerely,

MAUREEN EL HARAKE
Branch Chief, Regional-Community-Transit Planning
District 12

c: OPR State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Response to the California Department of Transportation
Comment Letter Dated August 31, 2016

CT-1 Figures 2-1 and 2-2 of the traffic study prepared for Program Environmental Impact Report (PEIR) 623 (Appendix E) depict that one percent of Project trip distribution would be on Ortega Highway east of Cow Camp Road. The percentage of Project traffic on the segment of Ortega Highway just east of Antonio Parkway/La Pata Avenue is not shown on the figures, but is accounted for in the traffic forecasts used for the analysis. Data from the traffic model used to prepare the traffic study indicates that the percentage of Project traffic on Ortega Highway just east of Antonio Parkway/La Pata Avenue is approximately two percent.

As indicated on page 4.9-3 of the Draft PEIR, traffic forecasts for the study were prepared using the South County Sub-Area Model, Version 3.4 (SCSAM 3.4) in combination with recent traffic projections prepared for the cities of Mission Viejo, San Juan Capistrano, and San Clemente. The SCSAM 3.4 traffic model is derived from the Orange County Transportation Analysis Model, Version 3.4 (OCTAM 3.4), which is maintained by the Orange County Transportation Authority (OCTA) and has been developed according to OCTA's Orange County sub-area traffic modeling guidelines. The OCTA has certified the SCSAM traffic model as being consistent with the OCTAM regional model.

The Year 2014 traffic counts referenced in the comment are not applicable to the distribution of future Project or Ranch Plan traffic. The traffic counts simply indicate the volume of traffic on the roadway at certain locations and do not convey information about the origin or destination of those vehicles, which would be needed to draw a conclusion regarding Project distribution. Historically, the trips on Ortega Highway east of the future Cow Camp Road connection include a large number of inter-county trips (travel between Orange and Riverside counties). The development of the Ranch Plan and the Project will be a new origin and destination for trips and will alter the distribution of traffic trips. Additionally, unlike today, the long-range (2035) analysis in Draft PEIR 623 assumes the completion of Cow Camp Road, which will be a major east-west facility that will attract the trips internal to the Ranch Plan boundary. Cow Camp Road will be a multi-lane roadway that meets current design guidelines. By design, the limited number of access points to Ortega Highway from the Ranch Plan Planned Community will restrict the number of Ranch-related trips on Ortega Highway.

The figures in the traffic study (Appendix E to the PEIR), identify the number of trips on Ortega Highway east of Antonio Parkway. Specifically,

- Figure 3-2 identifies that for existing conditions, there are 17,000 average daily trips (ADT) on Ortega Highway east of Antonio Parkway and approximately 14,000 ADT in the vicinity of the future extension of Cow Camp Road.

- Figures 4-1 through Figure 4-4 identifies 14,000 ADT on Ortega Highway east of Antonio Parkway, approximately 10,000 ADT west of the future

extension of Cow Camp Road, and 15,000 ADT east of the future extension of Cow Camp Road for the Alternative Baseline condition. The same volumes are projected for the No Project and Scenarios 1 through 3.[3] This would indicate that some of the trips on Ortega Highway will be utilizing Cow Camp Road.

- Figure 4-5 through Figure 4-8 identifies 17,000 ADT on Ortega Highway east of Antonio Parkway, approximately 11,000 ADT west of the future extension of Cow Camp Road, and 20,000 ADT east of the future extension of Cow Camp Road for the 2035 cumulative, without State Route (SR)-241 extension condition. The same volumes are projected for the No Project and Scenarios 1 through 3. As indicated above, this would indicate that some of the trips on Ortega Highway will be utilizing Cow Camp Road.

- Figure 4-9 through Figure 4-12 identifies 16,000 ADT on Ortega Highway east of Antonio Parkway, approximately 11,000 ADT west of the future extension of Cow Camp Road, and 19,000 ADT east of the future extension of Cow Camp Road for the 2035 cumulative, with the SR-241 extension condition. The same volumes are projected for of the No Project and Scenarios 1 through 3. Similar to the previously discussed evaluations, this would indicate that some of the trips on Ortega Highway will be utilizing Cow Camp Road.

This analysis demonstrates that overall traffic volumes on Ortega Highway are projected to slightly increase by 2025; however, they would become a lower percentage of the overall number of trips on the roadway network in this area. A substantial portion of the overall growth in the area will be related to the development of the Ranch Plan. To facilitate the reader's review of this response, the figures from the traffic report have been duplicated and are provided at the end of this response to Caltrans' comments.

CT-2 The Affordable Housing units that would be developed as part of the Project would be completely integrated within the overall Ranch Plan Planned Community. As such, these units will have full access to the broad range of vehicle miles traveled (VMT) reduction strategies that are being implemented by the Ranch Plan. As part of the Greenhouse Gas (GHG) Emissions discussion, Draft PEIR 623 provides a discussion of the RanchRide program, which is aimed to reduce mobile emissions. Though no trip or GHG emission reductions were taken, Section 4.2 of Draft PEIR 623 indicates that the Orange County Transportation Authority (OCTA) approved a grant to provide funding for a program that would serve Ladera Ranch and the Ranch Plan as part of the Community-Based Transit/Circulators Program. This program is funded by OCTA's Measure M2 Project V program. The service will be administered by Rancho Transportation Management Association (TMA) under the service trademark of RanchRide through a public-private partnership with the County of Orange. A pilot program was operated in 2015 to

[3] The traffic study identified the Project Scenarios as Alternatives. For consistency with the nomenclature in the Draft PEIR, this discussion uses the term "scenario" even though the figure uses "alternative".

clarify the needs for the communities, emphasizing a dynamic level of service. The OCTA Measure M2 Project V provides funding for an initial seven years, beginning in the fourth quarter of 2016, extending through 2023. Funding for RanchRide is also derived from a portion of the homeowners' association fees collected by the Rancho Mission Viejo Master Maintenance Corporation. As the program develops, more information schedules and number of boardings will become available.

CT-3 Your concern regarding the hauling of construction materials on State facilities is acknowledged. Suppliers would be responsible for complying with all applicable Caltrans requirements regarding the hauling of construction materials.

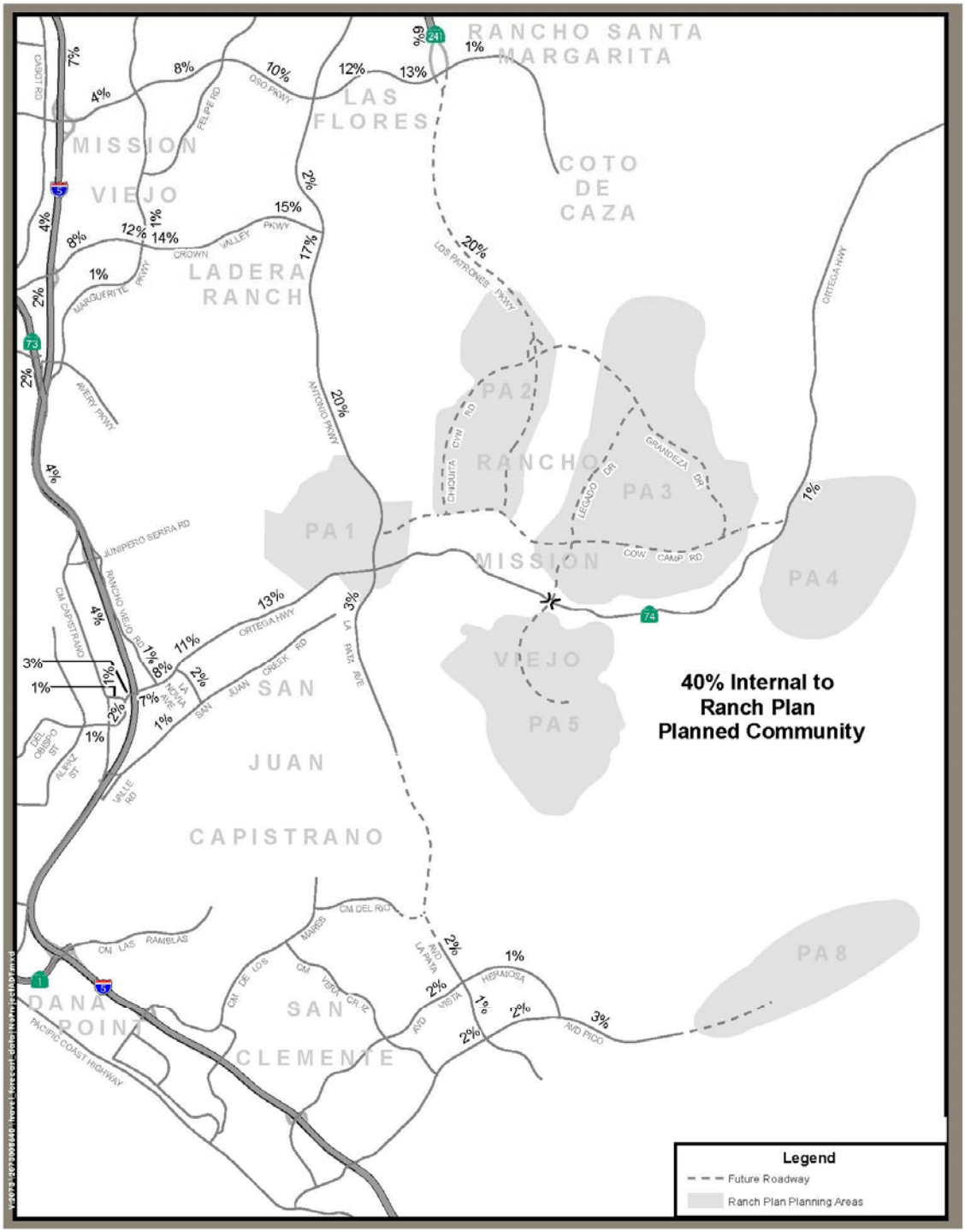


Figure 2-1
Affordable Housing Project Trip Distribution Pattern Without SR-241 Extension
2.7

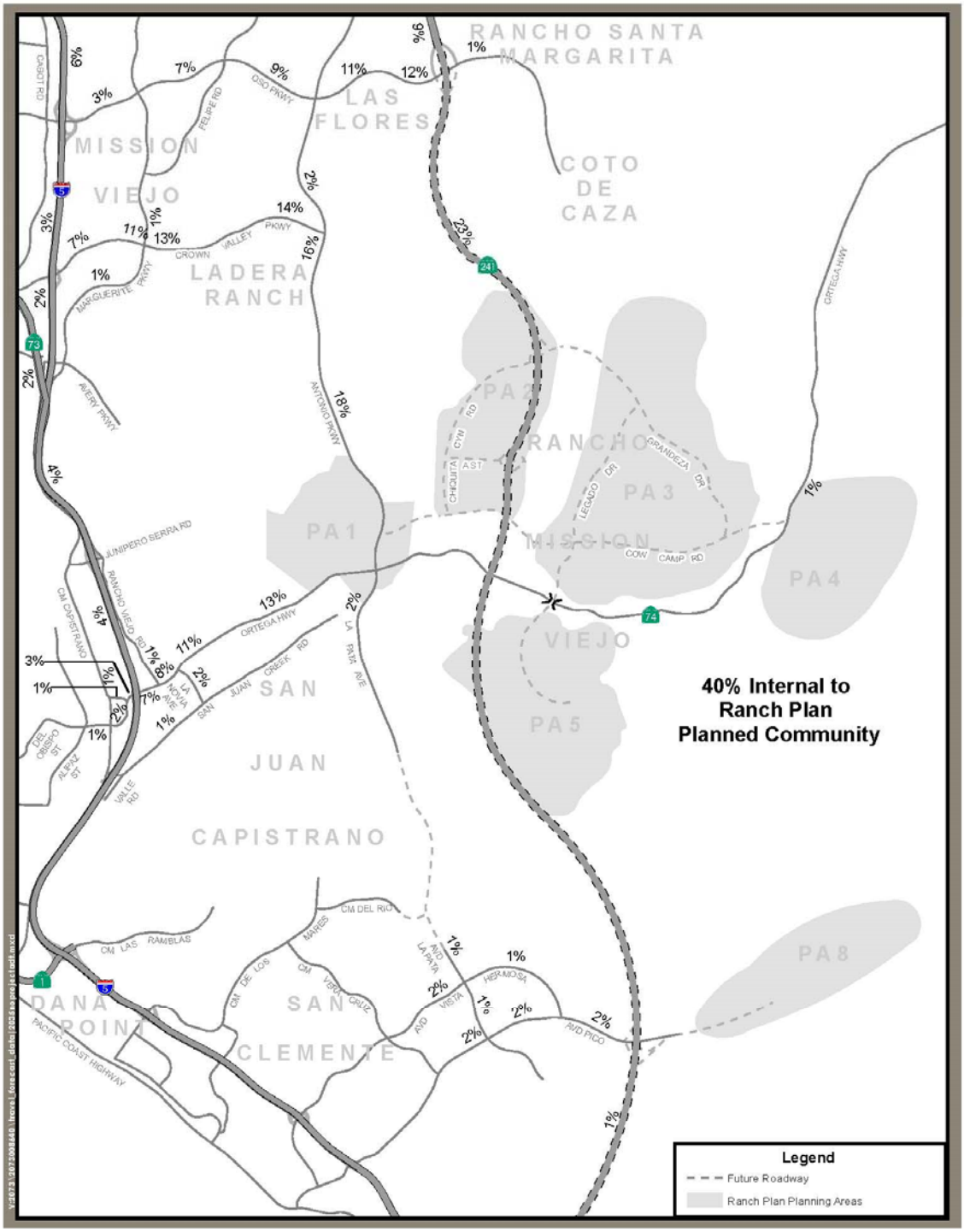
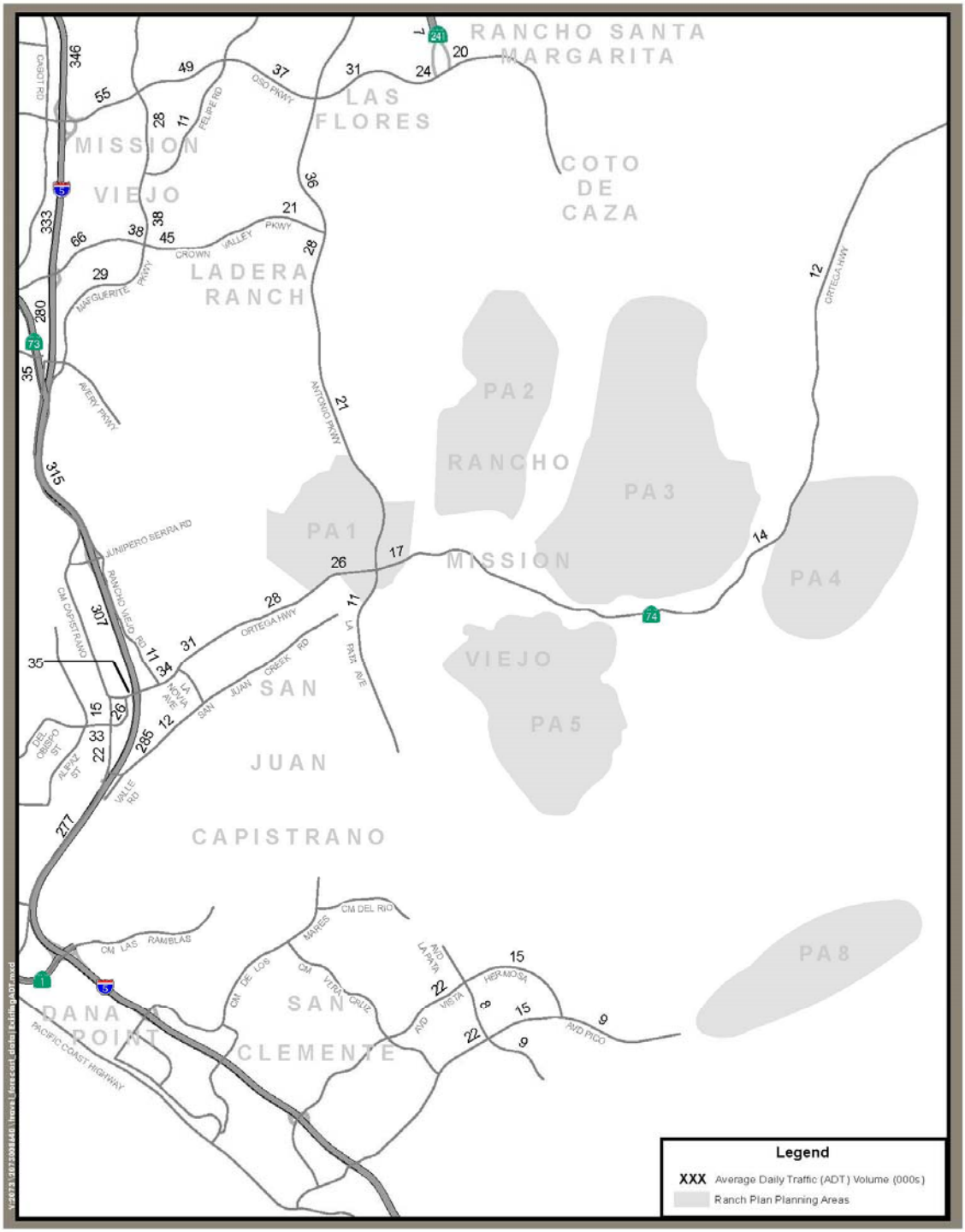
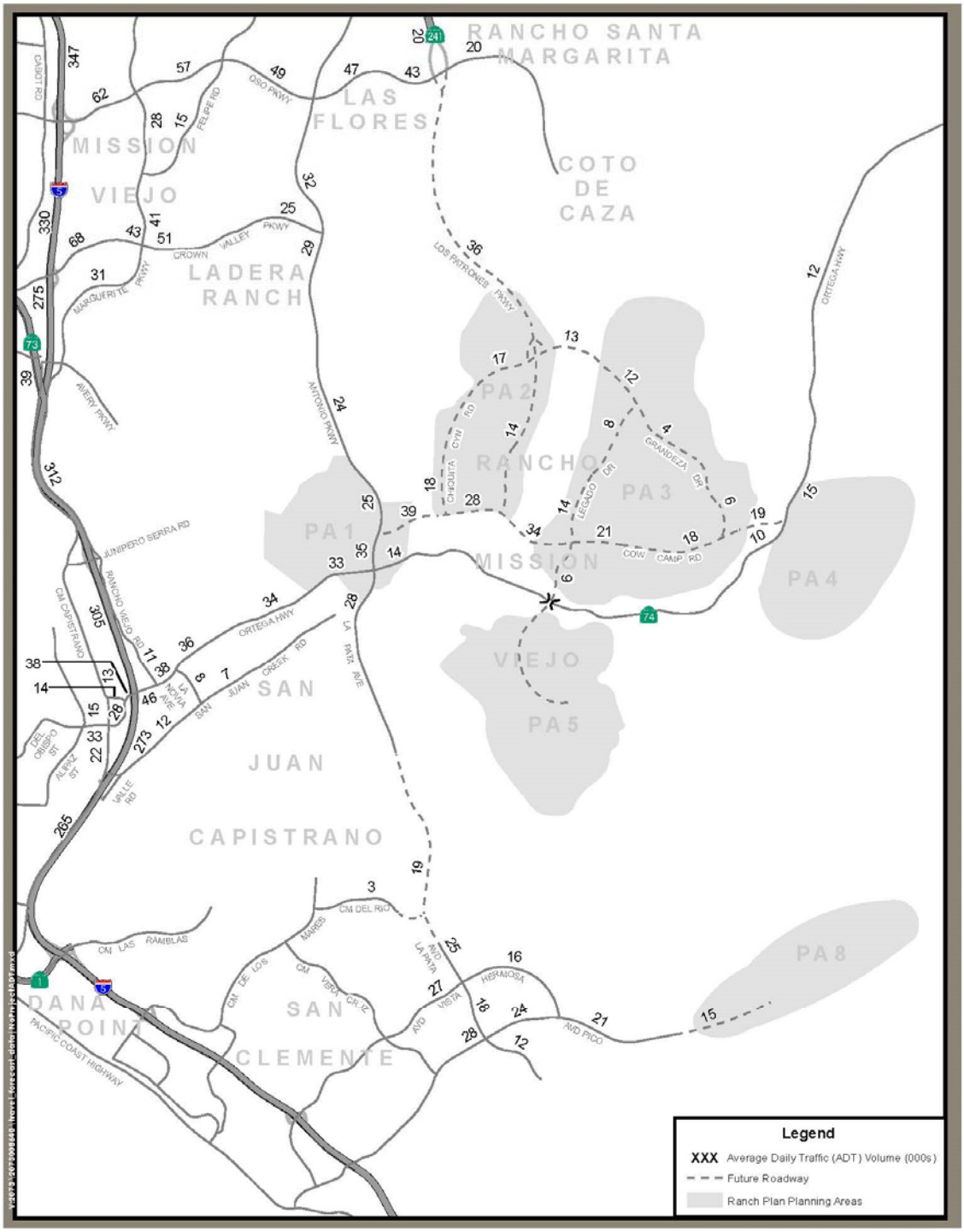


Figure 2-2
Affordable Housing Project Trip Distribution Pattern With SR-241 Extension
2.8



Stantec

Figure 3-2
Existing ADT Volumes (000s)
3.3



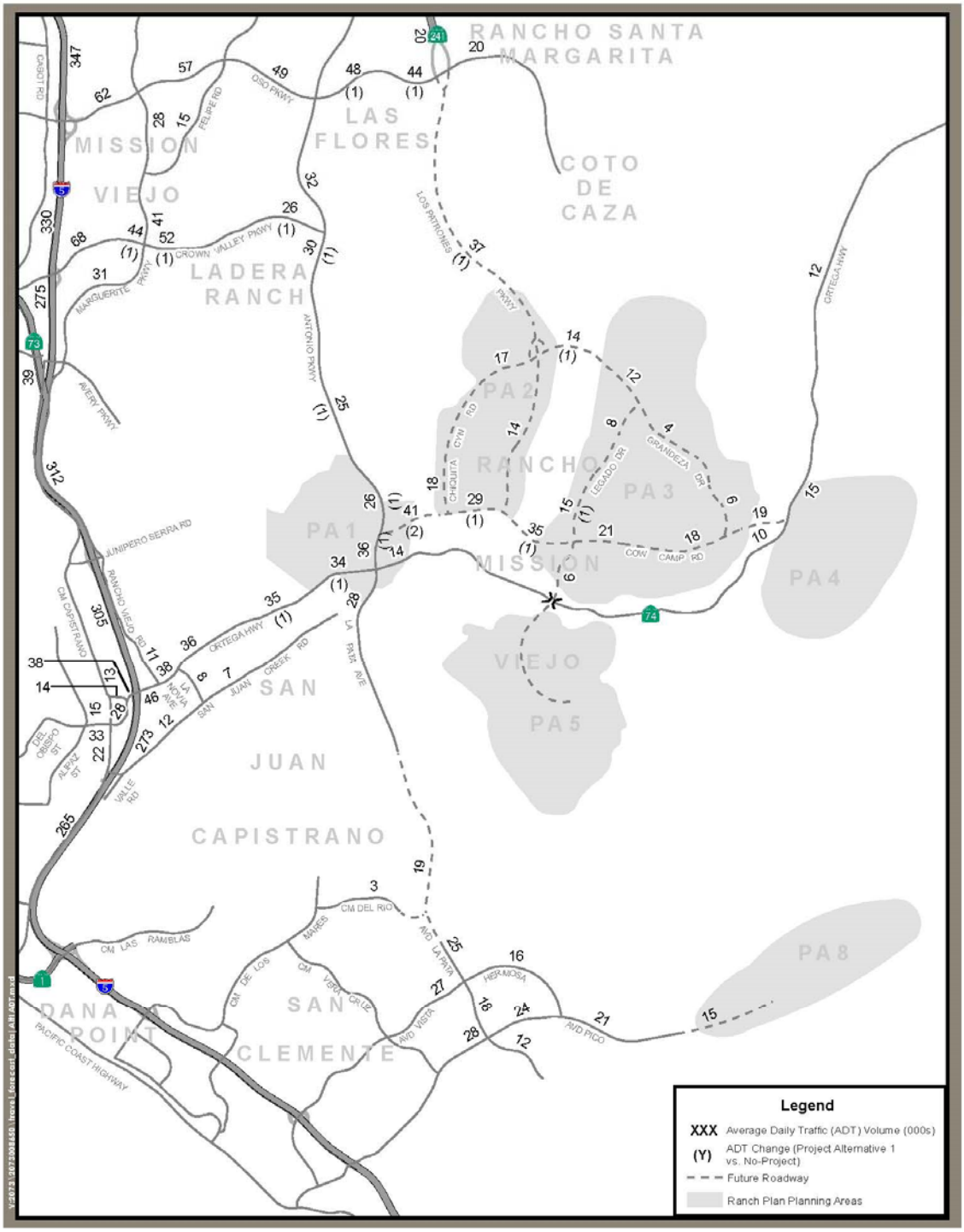
Stantec

N

Figure 4-1

Alternative Existing Baseline ADT Volumes (000s) - No Project

4.4



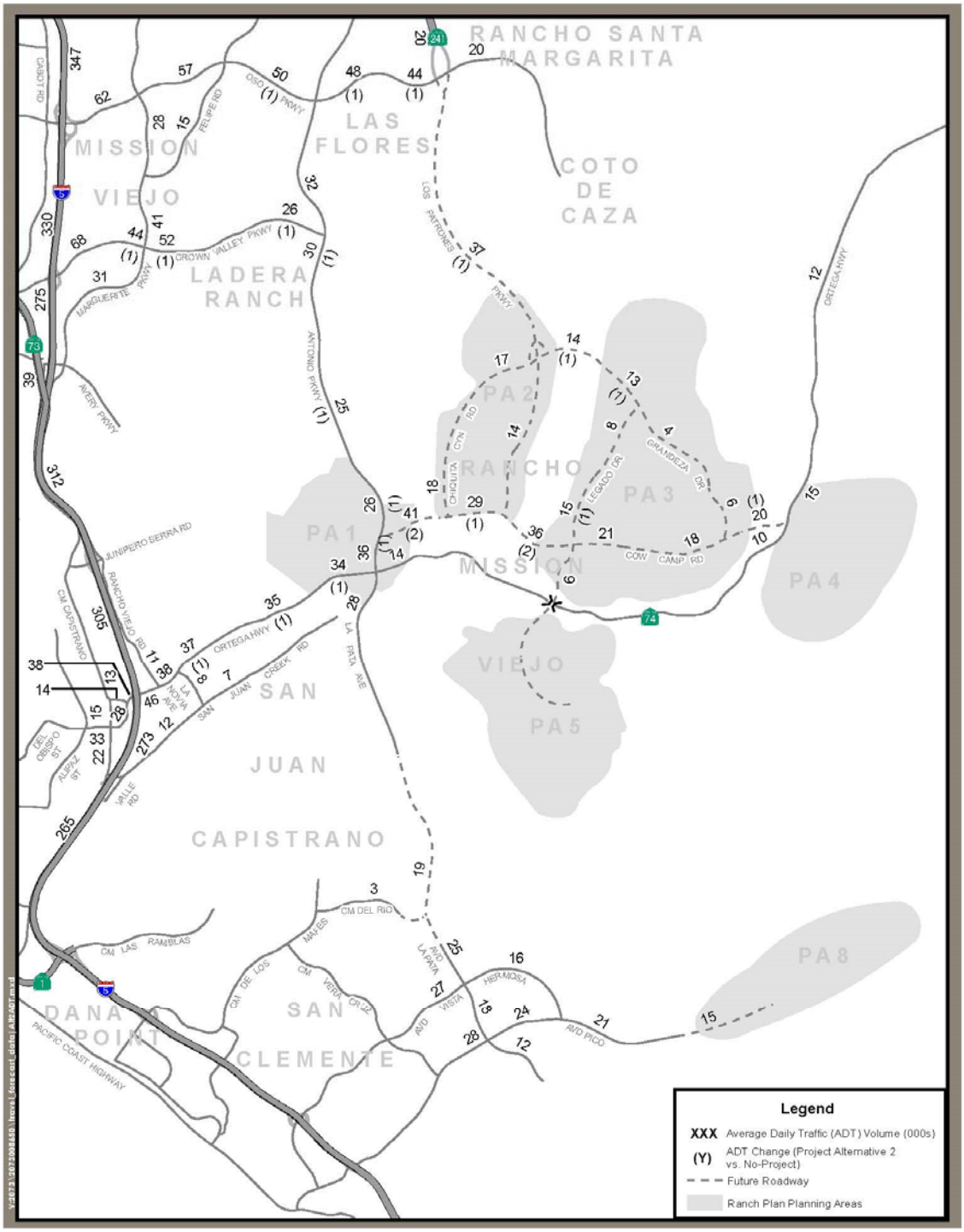
Stantec

N

Figure 4-2

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 1

4.5



Stantec

Figure 4-3

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 2

4.6

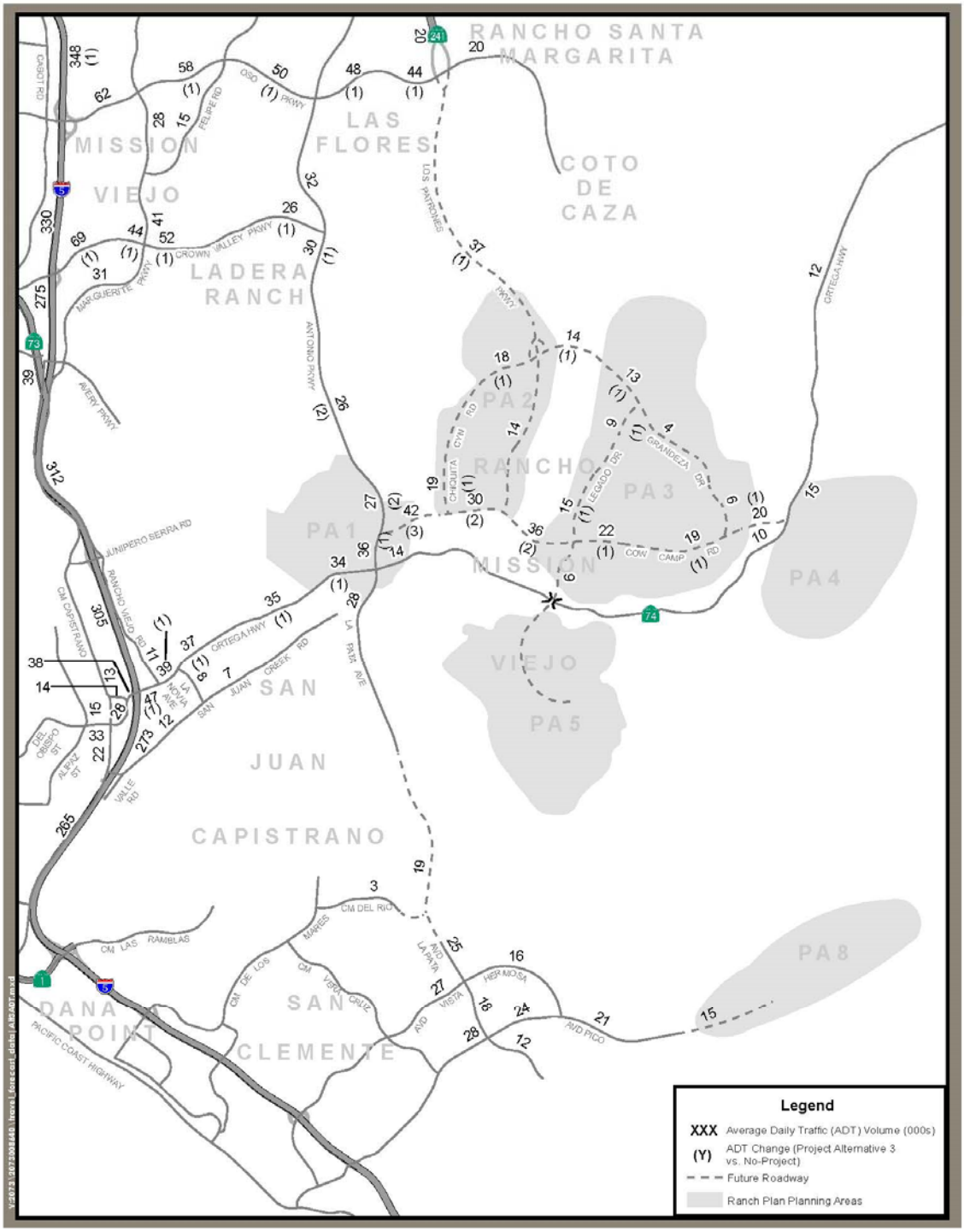
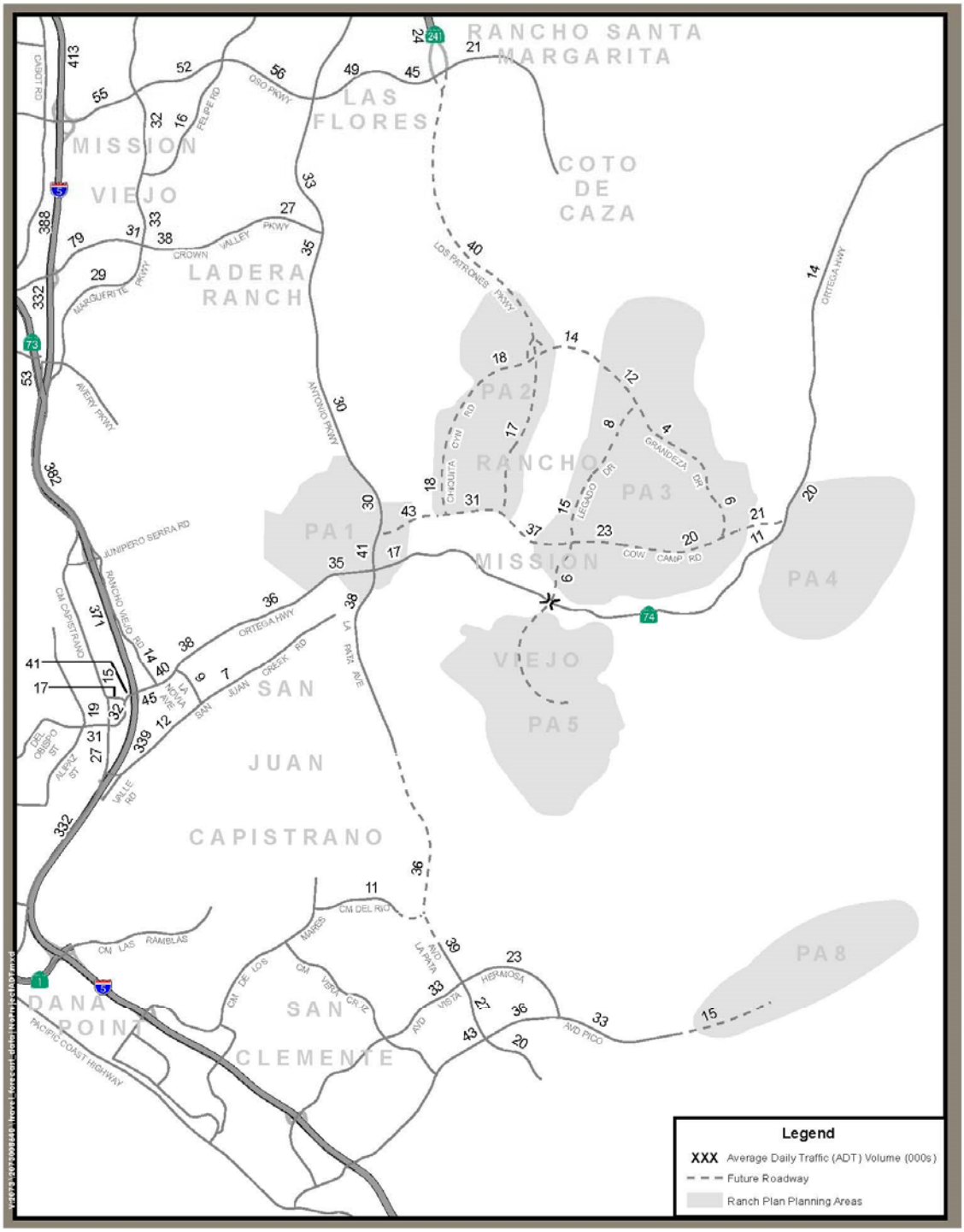


Figure 4-4

Stantec

Alternative Existing Baseline ADT Volumes (000s) - Project Alternative 3

4.7

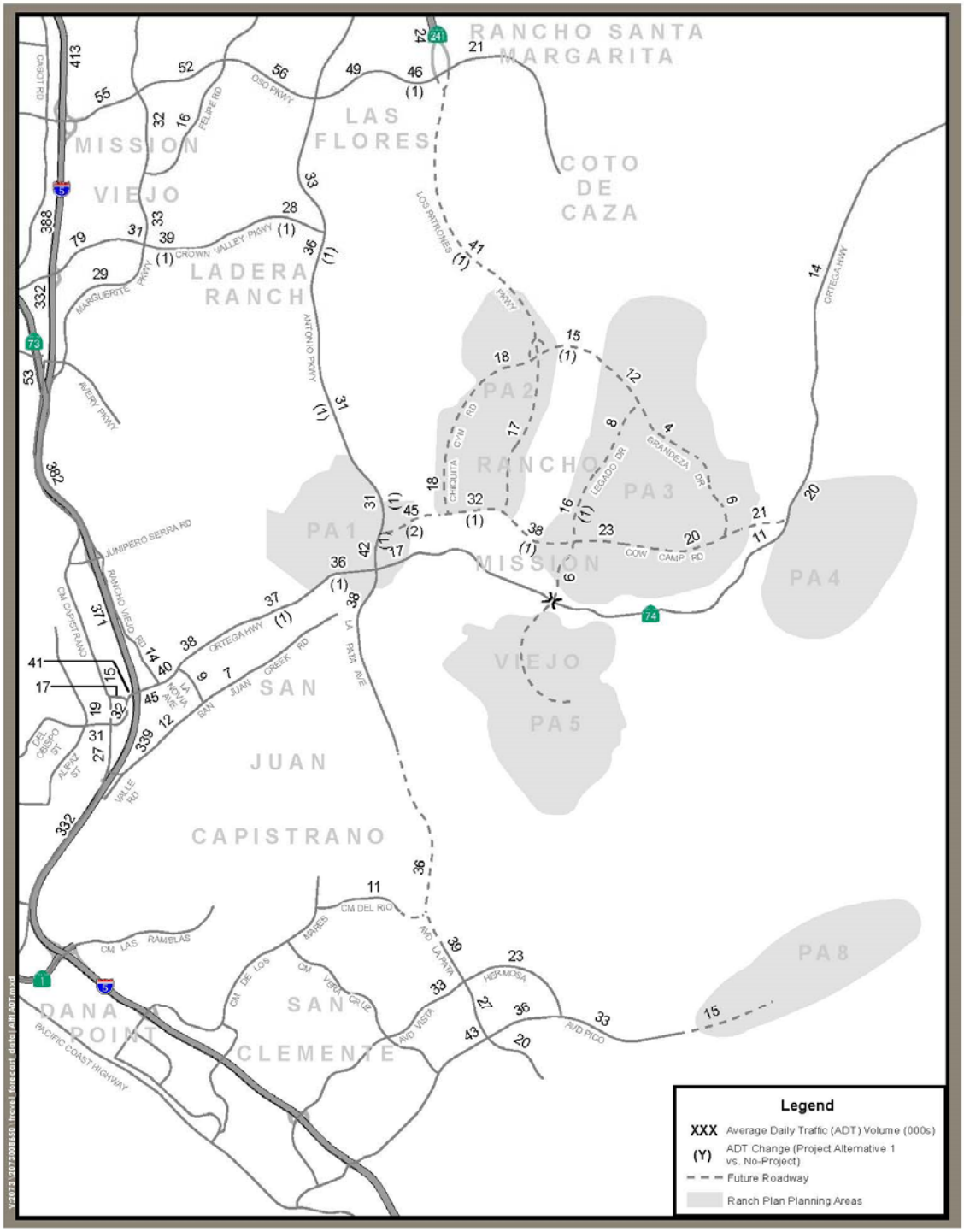


Stantec

Figure 4-5

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - No Project

4.8

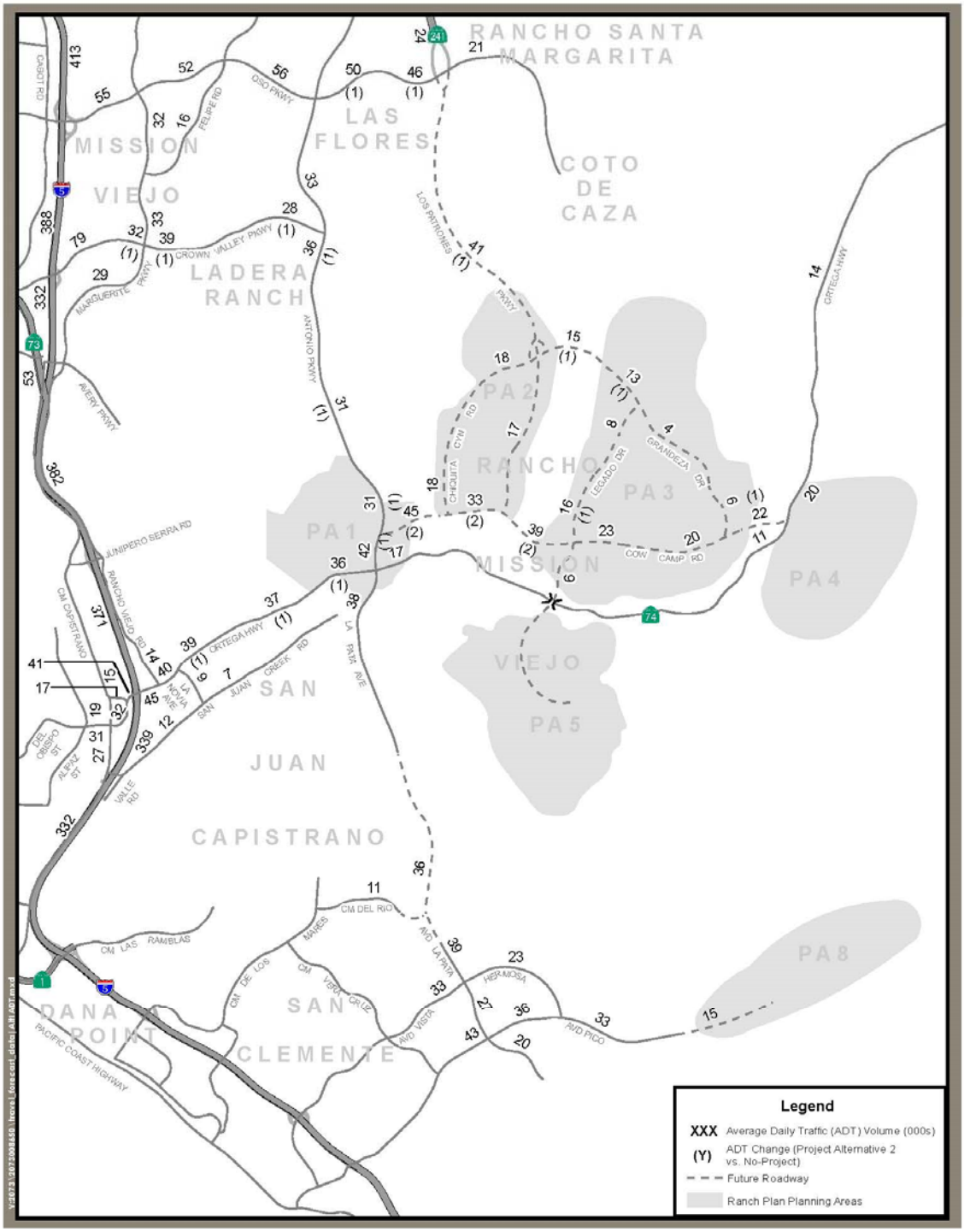


Stantec

Figure 4-6

2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 1

4.9

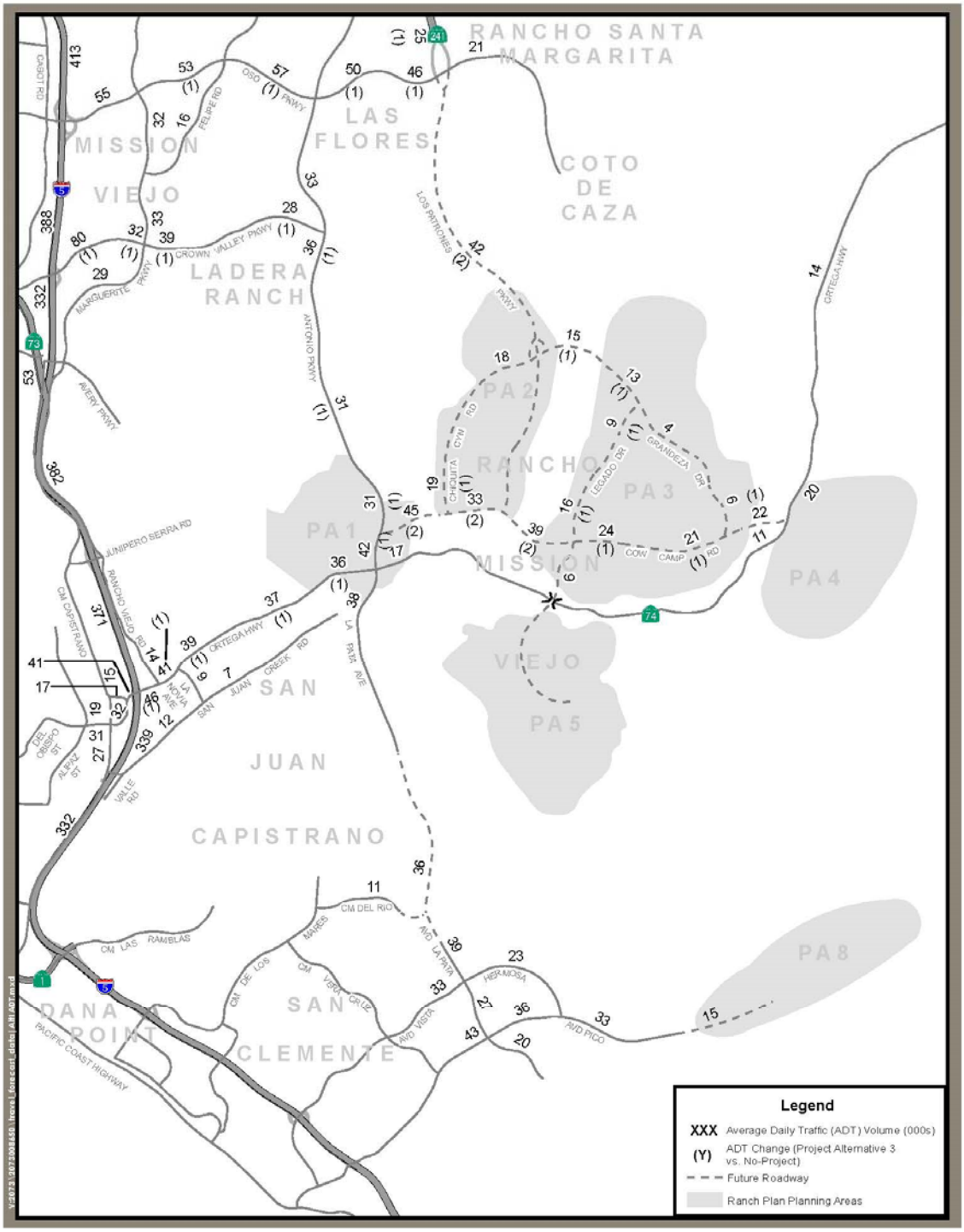


Stantec

Figure 4-7

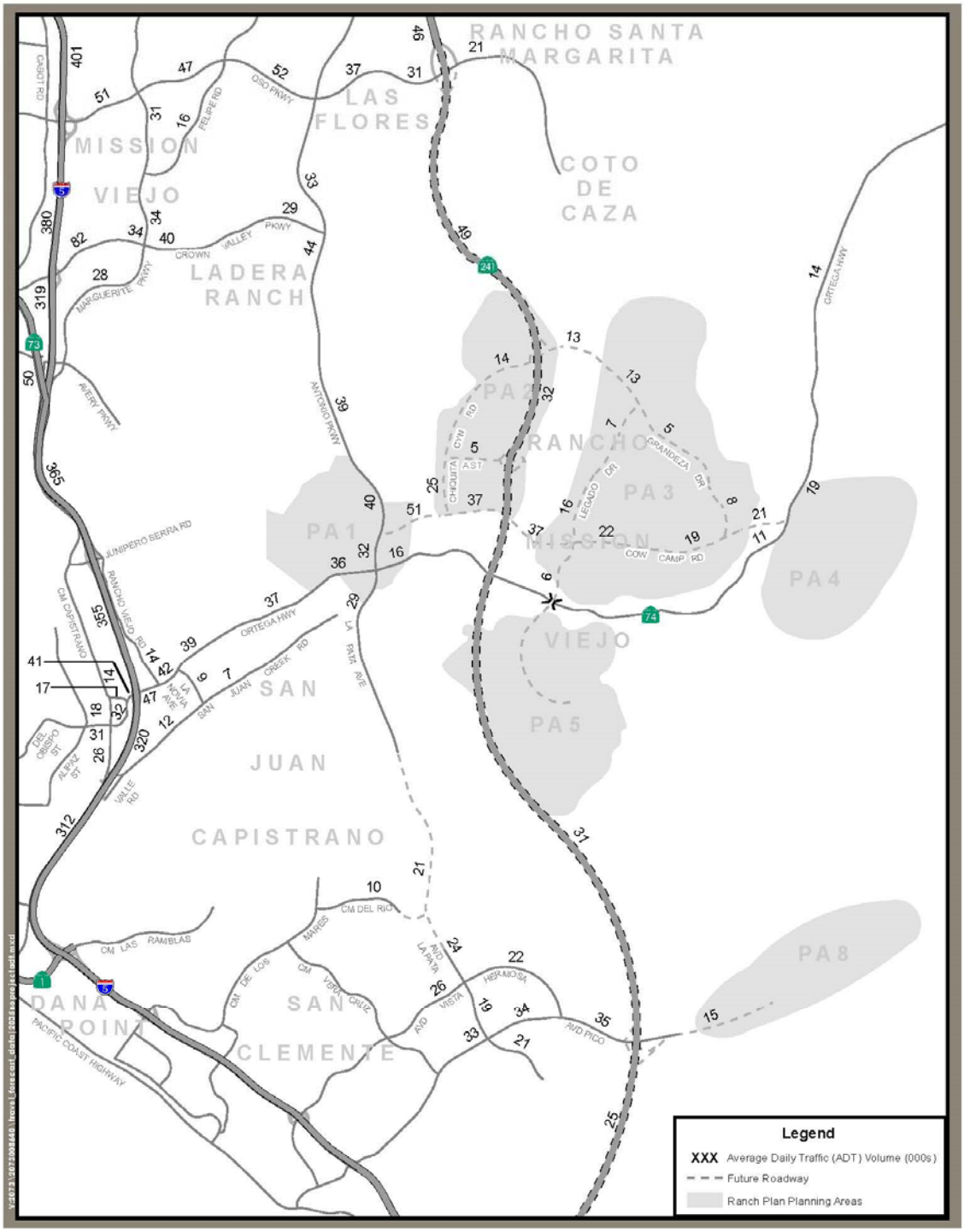
2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 2

4.10



Stantec

Figure 4-8
2035 Cumulative ADT Volumes (000s) Without SR-241 Extension - Project Alternative 3
4.11



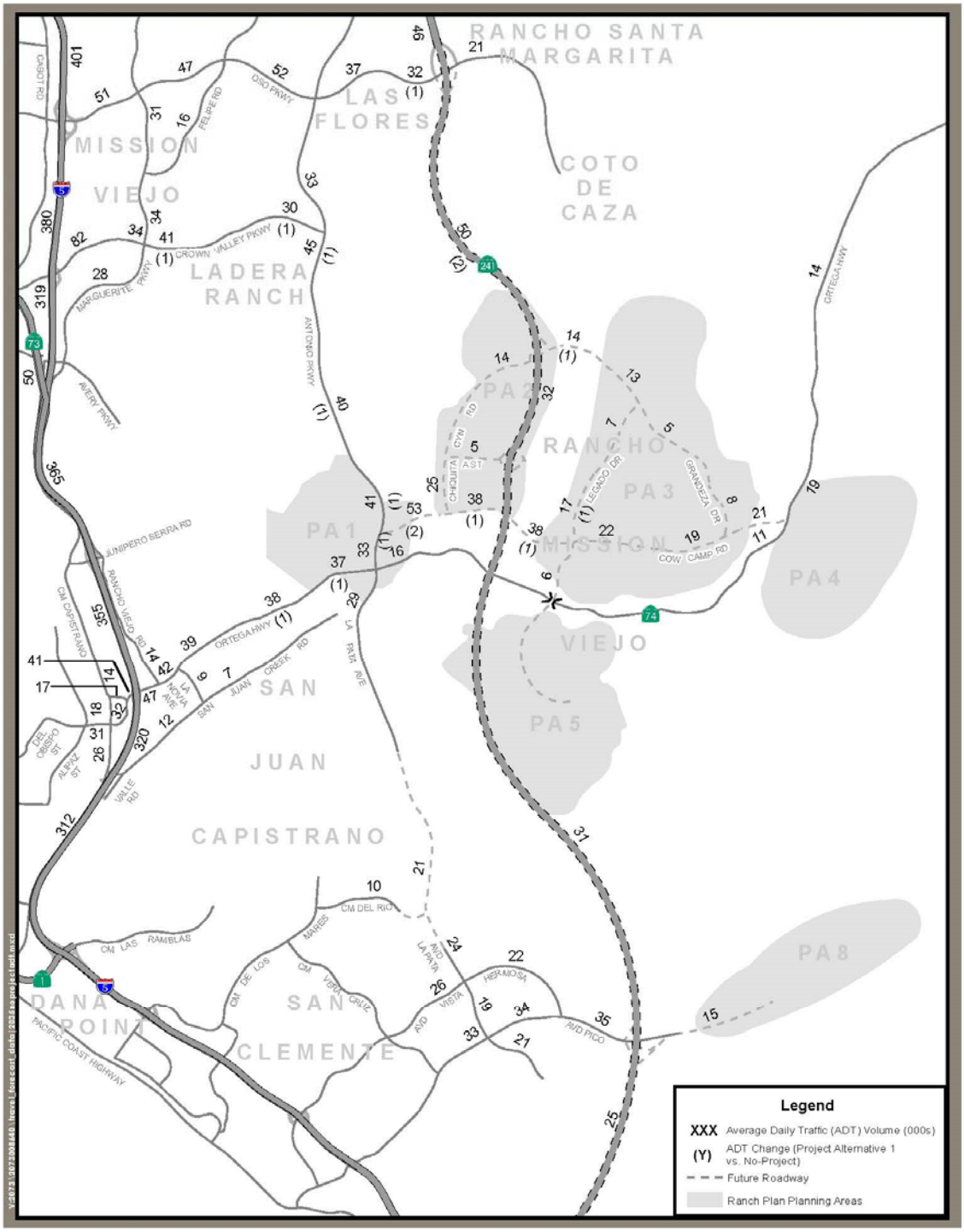
Stantec

N

Figure 4-9

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - No Project

4.12



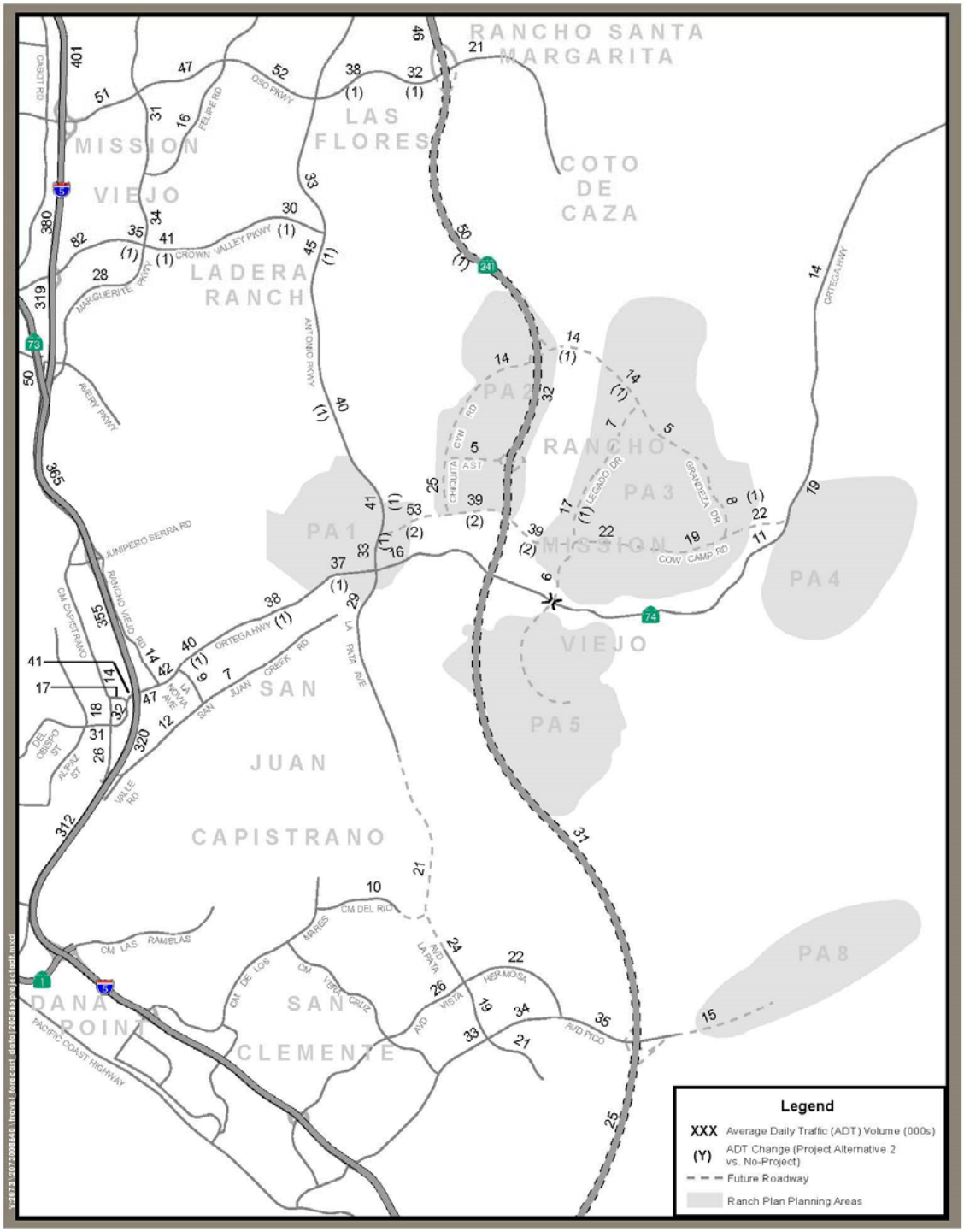
Stantec

N

Figure 4-10

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 1

4.13



Stantec

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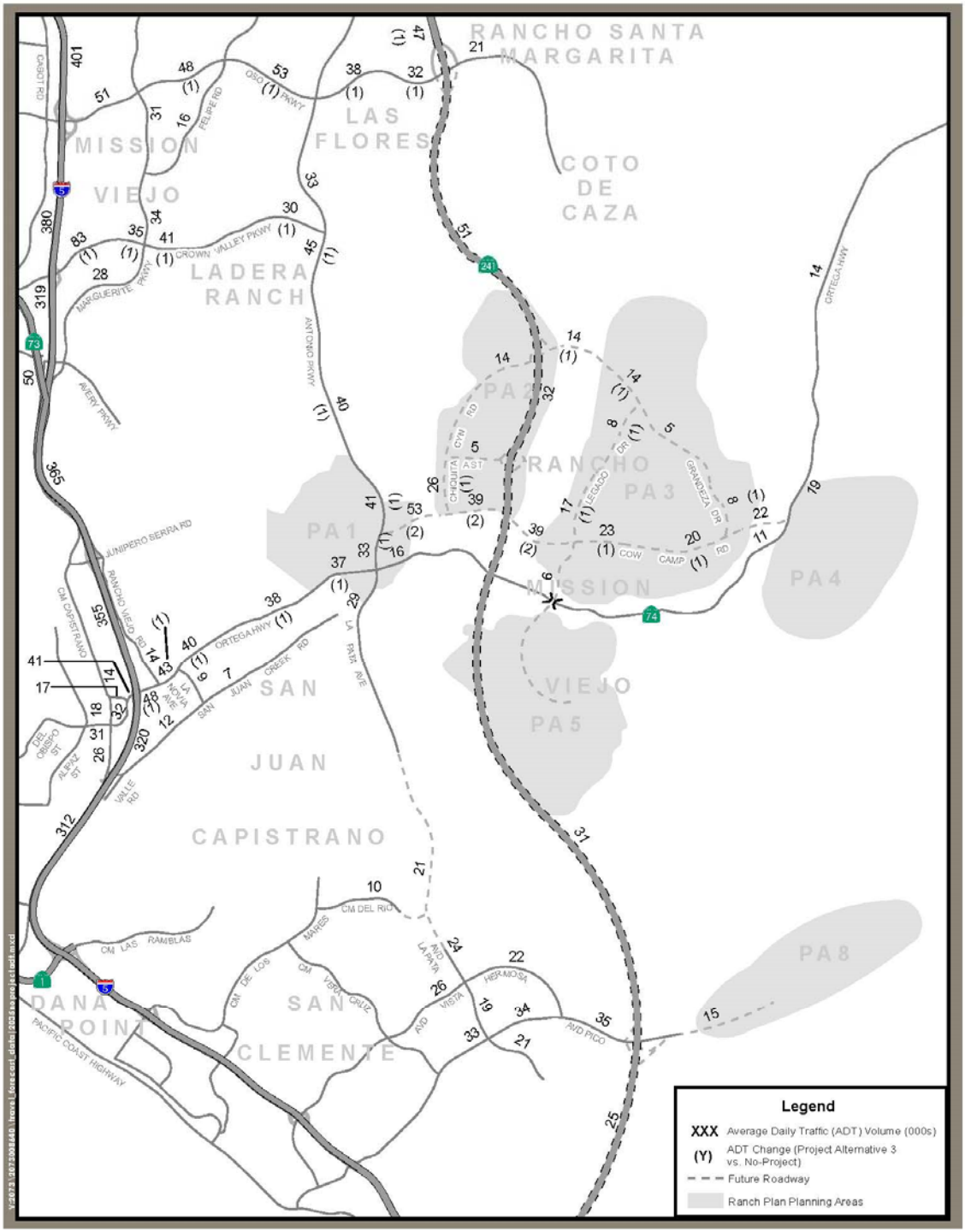
Figure 4-11

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 2

4.14



Stantec

N

Figure 4-12

2035 Cumulative ADT Volumes (000s) With SR-241 Extension - Alternative 3

4.15

ORANGE COUNTY FIRE AUTHORITY
P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602
Jeff Bowman, Fire Chief **(714) 573-6000** **www.ocfa.org**

July 28, 2016

OC Public Works
Land Development
P.O. Box 4048
Santa Ana, CA 92702-4048
Attn: Bea Bea Jimenez

SUBJECT: Affordable Housing Draft PEIR

To whom it may concern:

Thank you for the opportunity to review the subject document. The Orange County Fire Authority (OCFA) provides fire protection and emergency medical services response to 23 Orange County Cities and Orange County's unincorporated communities. We have the following comments:

- *Page 4.7-1*: Under Secured fire Protection Agreement, please change Ranch Mission Viejo to Rancho Mission Viejo — OCFA-1
- *Page 4.7-3*: Please make the following changes — OCFA-2
  - According to the SFPA, Planning Areas 3, 5, and 8 will each house a station in the future; each station will be built concurrently with its respective Planning Area and will be fully staffed and operational prior to residential occupancy.
- Although not specifically in the report, this area of development is extremely close to the former TRW/Northrop-Grumman facility (33000 Av Pico, SCL). This site operated for decades (1960's to 2011). There was extensive testing/use/storage of rocket fuels, jet fuels, and highly toxic materials. Please include any Hazardous Materials Historical Reference that may impact this project. — OCFA-3

Please contact me at 714-573-6199 if you need any further information on this matter

Sincerely,

Tamera Rivers
Management Analyst
Strategic Services Section

Serving the Cities of: Aliso Viejo • Buena Park • Cypress • Dana Point • Irvine • Laguna Hills • Laguna Niguel • Laguna Woods • Lake Forest • La Palma Los Alamitos • Mission Viejo • Placentia • Rancho Santa Margarita •San Clemente • San Juan Capistrano • Santa Ana • Seal Beach • Stanton • Tustin • Villa Park Westminster • Yorba Linda • and Unincorporated Areas of Orange County

RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES

Response to the Orange County Fire Authority
Comment Letter Dated July 28, 2016

OCFA-1 Your comment is noted. The misspelling on Page 4.7-1 of the Final Program Environmental Impact Report (PEIR) is corrected to read as follows (*red italics* shows the additional text):

> Development of the Ranch Plan Planned Community (the Ranch Plan) is subject to certain requirements imposed by the County, including provisions relating to fire protection services. As part of these requirements, Ranch*o* Mission Viejo (RMV) entered into two separate Secured Fire Protection Agreements (SFPA) with the Orange County Fire Authority (OCFA).

OCFA-2 The approved SFPA between the OCFA and the RMV Community Development, LLC, does contain provisions for interim fire protection facilities; therefore, and it cannot be stated that the SFPA requires that the new permanent stations be fully staffed and operational prior to residential occupancy. It should be noted that the last sentence of the first paragraph on page 4.7-4 of the Draft PEIR does state that, if development is occupied that is more than three miles from an existing fire station, then interim fire protection facilities and equipment may be required.

OCFA-3 Your comment concerns the potential for hazardous materials in Planning Area 8 (the former TRW/Northrup-Grumman facility). As discussed in Sections 1.8 and 3.4.4 of the Draft PEIR, the provisions of the Affordable Housing Implementation Agreement (AHIA) require RMV to provide the County of Orange with graded sites within the Ranch Plan; to provide access; and to extend utilities to the parcels before the development of the Affordable Housing units can commence. The hazardous materials impacts associated with implementation of the Ranch Plan, including the site preparation for the Project and specifically Planning Area 8, are addressed through Final Environmental Impact Report (FEIR) 589 for the Ranch Plan. This included Phase I Environmental Site Assessments (ESAs) for each Planning Area to assess the possible presence of recognized environmental conditions within the Ranch Plan site boundary where development is proposed. The term "recognized environmental conditions" is not intended to include *de minimus* conditions that generally do not present a material risk of harm to public health or the environment. The full reports were contained in FEIR 589, Technical Appendix I.

FEIR 589, prepared for the Ranch Plan, did address the potential for contamination in Planning Area 8 (Section 4.14 of FEIR 589) from the Northrup-Grumman facilities.[4] Based on the Phase I Environmental Site Assessment prepared for FEIR 589, there had been past releases of hazardous materials; however, past releases had been appropriately remediated at that time. Potential lead and/or copper hazards associated with two shooting ranges were identified and a mitigation measure requiring proper clean-up/remediation was adopted. Remedial actions, including the removal of lead-impacted soil from the Upper and Lower Shooting Ranges was

[4] Orange, County of. 2004. *The Ranch Plan Final EIR 589*. Santa Ana, CA: the County.

implemented in November 2009, and the Orange County Health Care Agency issued No Further Action letters in May 2010.[5]

FEIR 589 also noted that, when operations at the Northrup-Grumman facilities are terminated prior to implementation of the Ranch Plan, there would be the need for the preparation of a comprehensive closure plan in compliance with applicable regulatory guidance, which would ensure that sufficient safeguards for public health and safety are met. In addition to general requirements that would apply to all portions of the Ranch Plan, the following mitigation measures in FEIR 589, pertain to the Northrup-Grumman site:

- Remove, all storage tanks, fuel dispensers, clarifiers and crushing equipment in compliance with Orange County Health Care Agency (OCHCA) regulations (FEIR 589, Mitigation Measure [MM] 4.14-6). As part of this measure soil and groundwater sampling is required and development of a remediation plan pursuant to applicable laws and regulations.

- Verification of soil sampling and testing of the areas previously used for pistol ranges has been completed and spent ammunition has been removed and soils tested to assess residual lead and copper concentrations (FEIR 589, MM 4.14-11). If significant contamination is encountered, the results of the testing/investigation, etc. will be provided to the appropriate agency, for direction and oversight. Soil with residual lead or copper concentrations exceeding U.S. Environmental Protection Agency's Preliminary Remedial Goals (PRGs) shall be removed from the property and disposed of at an appropriate facility.

- Development of a comprehensive closure plan to assess, monitor, and mitigate any residual threats to human health or the environment which may remain as a result of the Northrop Grumman Space Technology Test Site operations and closure (FEIR 589, MM 4.14-12).

- The Environmental Site Assessments (ESAs) will be updated prior to issuance of a grading permit (FEIR 589, MM 4.14-13).

These measures have been included as part of the comprehensive closure plan prepared for the Northrup-Grumman site. Additional investigations, including groundwater monitoring and site characterization are currently ongoing at the facility. All locations of concern are currently under regulatory oversight and remediation by Northrup-Grumman is ongoing. Prior to the development of Planning Area 8, the site would need to meet regional screening levels for contaminants at residential receptors.

As stated in Draft PEIR 623, RMV would be required to obtain all necessary regulatory permits and/or clearances prior to the County's issuance of a grading permit.

[5] State Water Resources Control Board (SWRCB). 2016 (September, access date). CSM Report for Public Noticing, Project Information (Data Pulled from Geotracker): Northrop Grumman Capistrano Test Site – Northrop Grumman San Juan Capistrano Test Site – Facility in General (Global ID: T10000001730), 33000 Avenida Pico, San Clemente, CA 92673. Sacramento, CA: SWRCB. http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000001730.

Mitigation associated with site preparation is the responsibility of RMV. The County would not have sites for Project implementation until RMV has graded the sites, provided access, and utility services is available. Any required remediation work would be completed prior to site grading; prior to the County accepting the Affordable Housing sites; and before the units can be constructed. As part of the grading permit process for the Ranch Plan, the County would require updated hazardous materials studies to characterize the soil conditions. Should remediation activities be required, this would need to be done prior to grading and would be the responsibility of the RMV. As discussed below, these requirements are contained in the mitigation program approved as part of FEIR 589 for the Ranch Plan.

OCTA

August 29, 2016

Ms. Bea Bea Jimenez
OC Public Works/Land Development Division
P.O. Box 4048
Santa Ana, CA 92702-4048

SUBJECT: Ranch Plan Planned Community

Dear Ms. Jimenez:

Thank you for providing Orange County Transportation Authority (OCTA) with the opportunity to review the Draft Program Environmental Impact Report (DPEIR) for the above mentioned project. The following comments are provided for your consideration:

- In Chapter 4, Page 4.8-4, consider revising the last sentence to read as follows: The San Juan Creek Class I Bikeway is shown on the Orange County Transportation Authority (OCTA) *Commuter Bikeway Strategic Plan (2009)* and the *District 5 Bikeways Strategy Report (March 2015).* — OCTA-1
- Note the County of Orange *Major Riding & Hiking Trails and Off-Road Paved Bikeways* map (November 2013) typically utilizes the terms "riding and hiking trail" to describe a soft-surface facility for equestrian use and walking/jogging activities. In comparison, the County typically utilizes the term "bikeways" to reflect paved bikeways. The County does not combine these terms interchangeably. — OCTA-2
- In Chapter 4, Section 4.8, Exhibit 4.8-1, — OCTA-3
  a. Consider revising to illustrate existing bikeways and trails outside of The Ranch to better convey linkage to the surrounding communities.
  b. Consider revising to illustrate existing bikeways and trails constructed within The Ranch such as along Cow Camp and Esencia Drive.
  c. The exhibit appears to reflect trails and bikeways identified on the County of Orange *Major Riding & Hiking Trails and Off-Road Paved Bikeways* map (November 2013), but labels are not provided. Consider revising the exhibit to identify the trails and bikeways identified by the County for ease in comparison and review. Additionally, consider providing additional street names such as La Pata Road south of San Juan Creek.
- In Chapter 4, Section 4-9, Exhibit 4.9-1 and "Planned Circulation System" on Page 4.9-10 describe the Ranch Plan circulation network. The "Planned Circulation System" is not consistent with the MPAH as noted, "On the Orange County Master Plan of Arterial Highways (MPAH), Grandeza Drive between Los Patrones Parkway and Cow Camp Road is designated as a four-lane secondary arterial and Cow Camp Road between Grandeza Drive and Ortega Highway is designated as a four-lane primary arterial. Current design of these two roadways includes the option to construct the segment of Grandeza Drive across Gobernadora Canyon (i.e., between Los Patrones Parkway and Legado Drive) — OCTA-4

Orange County Transportation Authority
550 South Main Street / P.O. Box 14184 / Orange / California 92863-1584 / (714) 560-OCTA (6282)

and the segment of Cow Camp Road across San Juan Creek (i.e., between Grandeza Drive and Ortega Highway) as two-lane roadways although the MPAH has not yet been amended to designate these segments as two-lane roadways." Please contact OCTA to initiate an amendment to the MPAH prior to construction in order to maintain eligibility for Measure M2 funding.

OCTA-4 cont.

- In Chapter 4, Page 4.9-85 under "Mass Transit" provides the nearest available transit service at Ortega Highway and Rancho Viejo Road which is Route 191. In February 2016, the OCTA Board of Directors approved the 2016 Bus Service Plan (Link: http://www.octa.net/pdf/FINAL_2016_SERVICE_CHANGE.pdf). This plan reallocates bus service with the intention of increasing ridership. As part of this plan, Route 191 will be discontinued in the upcoming October 2016 service change. Accordingly, please reflect this upcoming change under "Mass Transit."

OCTA-5

Throughout the development of the City's General Plan Update, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714) 560-5907 or at dphu@octa.net.

Dan Phu
Environmental Programs, Manager

November 8, 2016

Ms. Rose Fistrovic, Manager
OC Public Works/OC Planning
300 North Flower Street
Santa Ana, CA 92702

SUBJECT: **Ranch Plan Planned Community Draft Program Environmental Impact Report No. 623 (SCH No. 2015051062)**

Dear Ms. Fistrovic:

Thank you for providing Orange County Transportation Authority (OCTA) with the *Responses to Comments on Program Environmental Impact Report 623* for the abovementioned project. We suggest the following revision for Comment Response OCTA-5, on page 2-36, and have some additional information for your consideration:

- "Bus Route 91 in San Juan Capistrano may provide connections with stops at the San Juan Capistrano Train Depot and at Mission San Juan Capistrano. There are currently no bus routes that would extend east to the Ranch Plan area. In the future, the Community-Based Transit/ Circulators Program, known as RanchRide, will operate through a public-private partnership with the County of Orange with funding from OCTA's Measure M2 Project V program. As the program develops, more information about schedules will become available."
- Additionally, please note as part of OCTA's October 2016 service change, Route 82 has been cut back south of Santa Margarita at Antonio thus no longer serves Ladera Ranch.

Throughout the development of the Ranch Plan Planned Community, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714) 560-5907 or at dphu@octa.net.

Sincerely,

Dan Phu
Manager, Environmental Programs

Orange County Transportation Authority
550 South Main Street / P.O. Box 14184 / Orange / California 92863-1584 / (714) 560-OCTA (6282)

Response to the Orange County Transportation Authority
Comment Letter Dated August 29, 2016

OCTA-1 Your comment is noted and the suggested revision is hereby made to the Final Program Environmental Impact Report (PEIR). However, it should be noted that this addition does not materially change the description of Project or the findings of the Draft PEIR. The text of the last sentence on page 4.8-4 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> The San Juan Creek *Class I* Bikeway is *shown* ~~also~~ on the Orange County Transportation Authority's (OCTA's) *Commuter Bikeway Strategic Plan (2009) and the District 5 Bikeways Strategy Report (March 2015)* ~~for regional bikeways~~.

OCTA-2 Your comment is noted; however, the purpose of the comment and whether a correction is being requested is not clear. The definition of the various classifications of bikeways is provided on page 4.8-4. These definitions are taken from the County's General Plan Transportation Element. The Recreation Element does not include similar definition; however, the County does have design standards for the regional riding and hiking trails that address grading, erosion control, signage, and fencing requirements. It should be noted that the Project addressed in Draft PEIR 623 will not be responsible for the provision of any bikeways or riding and hiking trails. The references in the Draft PEIR to future facilities was intended to provide a context of the amenities that would be available to the residents in the Ranch Plan, including those living in the Affordable Housing units. The riding and hiking trails are identified as facilities designated on County of Orange Master Plan of Regional Riding and Hiking Trails component of the Orange County General Plan's Recreation Element. Similarly, the references to specific bikeways is to facilities identified on the Orange County Bikeways Plan component of the Orange County General Plan's Transportation Element. Exhibit 4.8-1 of the Draft PEIR depicts the Ranch Plan Trails and Bikeways Concept, which is a combined map of facilities that will be implemented in the Ranch Plan as part of the County's more detailed planning and mapping effort. This exhibit not only depicts the regional trails and bikeways but the community trails that have been committed to by Rancho Mission Viejo (RMV).

OCTA-3 As indicated above, Exhibit 4.8-1 is a map of trails that will be implemented as part of the Ranch Plan. It was developed as part of the more detailed planning and mapping effort for the Ranch Plan and approved by the County of Orange. As such, making revisions to this exhibit is not recommended as part of this Project. The following provides an updated status of these facilities:

- The Class I Bikeway in Planning Area 1 is officially open. The extension over to Planning Area 2 is expected to open in Spring 2017 when more of Planning Area 2 is occupied.

- No portion of the San Juan Creek Riding and Hiking Trail is open although the portion extending through Sendero Community Park is finished and used by park users.

- Trail Y is opened and connects the completed portion of the Class I Bikeway in Planning Area 1 to the Ladera Loop Trail in Ladera Ranch

The following note is hereby added to Exhibit 4.8-1. The updated exhibit is provided in Section 3.1 of these Responses to Comments.

Subsequent to the approval of the Master Trail and Bikeway Implementation Plan, the portion of the Class I Bikeway in Planning Area 1 has been completed and is open for public use. Additionally, Trail Y has opened, which connects the completed Class I Bikeway in Planning Area 1 to the Ladera Loop Trail in Ladera Ranch.

A copy of the 2015 County of Orange Major Riding & Hiking Trail and Off-Road Paved Bikeways Map with the Ranch Plan boundary shown is provided for context of the Project to the surrounding regional facilities.

OCTA-4 As the comment notes, the Draft PEIR acknowledges that, if the options for constructing Grandeza Drive between Los Patrones Parkway and Cow Camp Road and Cow Camp Road between Grandeza Drive and Ortega Highway as two-lane facilities is pursued, an amendment to the Master Plan of Arterial Highways (MPAH) would be required. This discussion is provided on page 4.9-10 of the Draft PEIR.

OCTA-5 Your comment is noted. The Final PEIR has been updated to reflect that the mentioned transit route will not be operational starting in October 2016. It should be noted that this will not change the findings, which state that the Project would not have any impact on transit services. The Draft PEIR does not assume any trip or air emission reductions due to transit. The following text is hereby added after the second sentence in the Mass Transit discussion on page 4.9-85 (*red italics* shows the additional text; strike-out and underlined text reflects the change to the response to reflect the comments in the OCTA November 8, 2016 comment letter):

The closest transit service is in the vicinity of Ortega Highway and Rancho Viejo Road (near I-5)*; however, this line will be discontinued starting in October 2016*. *Bus Route 91~~, also~~ may in San Juan Capistrano~~, will~~ provide ~~similar~~ connections~~,~~ with stops at the San Juan Capistrano Train Depot and at Mission San Juan Capistrano. There ~~still~~ are currently no bus routes that would extend east to the Ranch Plan area. ~~However, to the north, Bus Route 82 provides a connection at Crown Valley Parkway and Antonio Parkway in Ladera Ranch. Starting in October 2016,~~ In the future, the Community-Based Transit/Circulators Program, known as RanchRide, will operate through a public-private partnership with the County of Orange with funding from OCTA's Measure M2 Project V program. As the program develops, more information about schedules will become available.*

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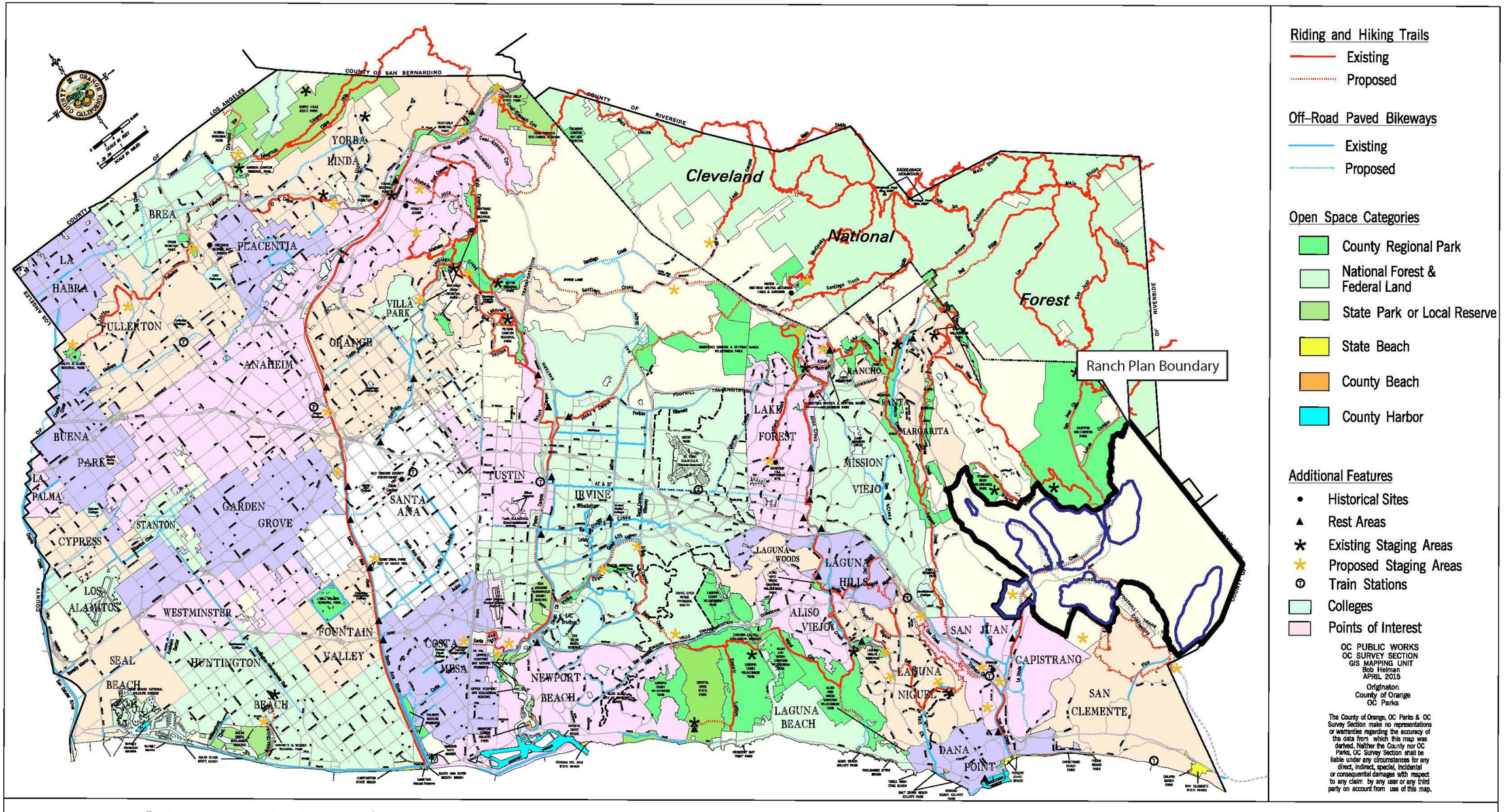

Major Riding & Hiking Trails and Off-Road Paved Bikeways

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RANCHO MISSION VIEJO

August 29, 2016

Bea Bea Jimenez
OC Public Works
Land Development Division
P. O. Box 4048
Santa Ana, California 92702-4048

Subject: Response Comments for Draft Program Environmental Impact Report (SCH #2015051062), Orange County Affordable Housing Implementation Program – Ranch Plan

Ms. Jimenez;

Thank you for providing Rancho Mission Viejo with the opportunity to review and comment on the subject Draft Program Environmental Impact Report (PEIR).

Rancho Mission Viejo (RMV) has been in the process of implementing its Ranch Plan development approved in 2004 and opening home sales in the Sendero Community (Planning Area 1) in 2013. The implementation affordable housing is being provided in compliance with the approved County/RMV Development Agreement (2004), approved Affordable Implementation Housing Agreement (AHIA) (2006) and subsequently approved AHIA Addendum Number One (2013). RMV has continued to work with the County to identify practicable alternatives to provide affordable housing with minimal costs with the County's loss of State Redevelopment funds and 40% cuts in Federal HOME Investment Partnership Program funds.

The AHIA Addendum Number One authorized the use of a "Private-Sector Alternative" method of development for affordable housing in Planning Areas 1 and 2 of the Ranch Plan. These affordable housing projects are appropriately recognized in the Draft PEIR and continue to proceed toward development construction and occupancy providing 219 affordable units on 7.8 gross acres. The remainder affordable housing acreage required under the AHIA is addressed by the Draft PEIR together with a second amendment to the AHIA for the continuance of the Private-Sector Alternative for development of affordable housing in the Ranch Plan development.

We offer the following comments to the Draft PEIR:

1. Page 2-12, Section 2.6.2 Affordable Housing Implementation Agreement – The summary discussion of the AHIA and Development Agreement reference should include mention of the County's obligation to RMV for recovery of associated infrastructure and grading costs with development of the affordable housing sites. This would also apply to

RMV-1

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28811 ORTEGA HIGHWAY • P.O. BOX 9 • SAN JUAN CAPISTRANO, CA 92693 • (949) 240-3363 • FAX (949) 248-1763

subsequent discussions for Scenario 2 and 3 Alternatives where public-sector resources are utilized. Exhibit D, Section 9 of the Rancho Mission Viejo/County of Orange Development Agreement approved November 8, 2004, page 55, provided that the County "…allow OWNERS (RMV) to recover the costs incurred in (i) providing the infrastructure necessary to support access to, and use of, the affordable housing project(s) to be developed on the Dedicated Land and (ii) grading, preparing and conveying the Dedicated Land to County in accordance with the provisions hereof." RMV-1 cont.

2. Page 2-14, Section 2.6.2 Affordable housing in PA 1 and 2 – An added recognition of CEQA documentation and process for PA 1 & 2 should be identified with the discussion of the PA 1 and 2 projects to distinguish separate from this Draft PEIR, as provided earlier in the Executive Summary. RMV-2
3. Page 2-15, Section 2.6.3 Infrastructure Improvements – Cow Camp Road Segment 2 should be clarified to begin construction in 2017/18 and need 24 months (instead of beginning in 2017 and need 18 months) based on current schedules. A project description for Ortega Highway improvements in the County should be added, pending improvements in the City, as well as the completed I-5 Interchange. Also, a completion date for the Zone II/Zone B Reservoirs for October 2016, should be added which are under construction. RMV-3
4. Page 2-20, Section 2.8.2 La Pata – The text should clarify that the first phase completes August 2016 and the second phase was begun in 2016. RMV-4
5. Exhibit 4.4-4 – This exhibit should have the same notation as other Ranch Plan exhibits noting the HCP limits for gross acres of development in Planning Areas 4 and 8. RMV-5
6. Page 4.8-5 and 6 - Under Scenario 3, it is correct there would be sufficient Quimby/local parkland available for use by the addition affordable housing residents, however, this does not remove the County's obligation for providing added parkland or payment of park in-lieu fees. The fact that the Ranch Plan project is "parks rich" does not justify avoidance of the requirement. This should be clearly stated along with the County's ability to waive in-lieu fees for affordable housing. RMV-6
7. Page 4.9-9 – This paragraph notes the project trip distribution is consistent with the internal/external relationship assumed in the 2004 EIR for the Ranch Plan as well as subsequent traffic studies such as the PA 3 and 4 Area Plan and Traffic Study however, the project's traffic report on Figure 4-9 depicts a volume of 21,000 ADT for Cow Camp Road at its easterly terminus with Ortega Highway. The PA 3 and 4 Area Plan Traffic Study depicts a volume of 18,000 ADT (Figure D-2). This inconsistency should be rectified. RMV-7

We appreciate this opportunity to comment on the Draft PEIR for the Orange County Affordable Housing Implementation Plan – Ranch Plan.

Sincerely,

Richard M. Broming
Sr. VP, Planning & Entitlement

CC: Robyn Uptegraff, County of Orange
Rose Fistrovic, County of Orange

Response to the Rancho Mission Viejo
Comment Letter Dated August 29, 2016

RMV-1 Your comment is noted. Addendum Two does not propose changes to the Rancho Mission Viejo/County of Orange Development Agreement for any Dedicated Lands that would be developed using public-sector resources. This is already acknowledged in the PEIR. Specifically, Section 2.6.2, page 3-3, states, "If public sector resources are used the process would follow the requirements of the original AHIA, which are summarized below under Project Processing." Therefore, no changes to the Final PEIR are deemed necessary.

RMV-2 Your comment is noted. However, adding a statement to Section 2.6.2 is not necessary because, as noted in the comment, the fact that separate CEQA documentation has been prepared for the affordable housing units in Planning Areas 1 and 2 has already been stated in the PEIR in Section 1.3, Project Background.

RMV-3 Clarification of on the timing of the improvements to Cow Camp Road Segment 2 are hereby made to the Final PEIR. The requested revisions do not modify the description of the Project or the findings of the Draft PEIR. The last sentence of the discussion of Cow Camp Road on page 2-15 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> The extension of the roadway from the eastern edge of Planning Area 2 over to Ortega Highway (known as "Segment 2") is under design. *The roadway will be constructed in phases. It is anticipated that the first phase of construction will extend east from Los Patrones Parkway, located on the eastern edge of Planning Area 2, over Gobernadora Canyon, and continue at-grade for approximately 1.25 miles.* Construction of *the initial phase of the* Segment 2 is expected to begin in ~~*2017*~~ *2018* and take *approximately 24*~~18~~ months to complete. *The remaining phases of the roadway will be constructed based on the phasing of development and the availability of funding, until it ultimately connects to Ortega Highway (SR-74).*

Section 2.6.3 is entitled "Subsequent Approvals and Modifications to the Ranch Plan". The improvements to the Ortega Highway interchange, which was completed in 2016, were not associated with the Ranch Plan. This was a separate California Department of Transportation (Caltrans) project distinct from the Ranch Plan. Similarly, the improvements to the segment of Ortega Highway in the City of San Juan Capistrano (widening from Calle Entradero to the City's eastern boundary) are not directly related to the Ranch Plan and would not be considered "Subsequent Approvals and Modifications to the Ranch Plan", though the planning for the City improvements are undertaken in conjunction with the improvements in unincorporated Orange County. The widening of Ortega Highway in the unincorporated portion was done as a Ranch Plan improvement, though it was not a modification to the original approval, which called for the widening of Ortega Highway as part of the Ranch Plan project. Therefore, the requested information is better located in Section 2.5, Environmental Setting. This information does not change the Project description or any of the analysis in the Draft PEIR; however, to enhance the readers' understanding of improvements in the area and the joint planning efforts for Ortega Highway, the

following text is hereby added to page 2-10, following the third paragraph that discusses regional access (*red italics* shows the additional text).

> *In 2006, Caltrans and the County prepared separate but coordinated engineering and environmental documents for the widening of Ortega Highway. Overall, Ortega Highway is proposed to be widened from Calle Entradero in the City of San Juan Capistrano to a point located 1,900 feet east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue in the County of Orange. The roadway would then transition back to the existing two-lane segment east of Antonio Parkway. Caltrans' document addresses the widening from Calle Entradero to the western boundary of the RMV Planning Area. The County's environmental evaluation for the approximate 1.1-mile segment from the western RMV Planning Area boundary to east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue was addressed in the Addendum to FEIR 589 prepared for the Master Area Plan and Subarea Plans for Planning Area 1. The roadway improvements, which widened Ortega Highway to four lanes, were completed for the unincorporated area in 2010. Improvements in the City of San Juan Capistrano are pending once funding is available. Though not related to the Ranch Plan, it should also be noted, that Caltrans completed a major reconstruction of the Ortega/Interstate 5 interchange in 2015.*

The status of the Zone II/Zone B reservoir tanks is hereby updated in discussion of Water Reservoir Facilities in Section 2.6.3. The second to the last sentence in the discussion of Water Reservoir Facilities on page 2-16 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> Additionally, construction *was completed in 2016* ~~initiated in 2015~~ on one 3.0-MG domestic water reservoir and one 2.0-MG recycled water reservoir, both of which are also located in Chiquita Canyon, south of Tesoro High School (SMWD 2015a).

RMV-4 Your comment on the timing of improvements to La Pata Avenue is noted and the update is hereby made to the Final PEIR. It should be noted that the first phase of improvements were completed after the release of the Draft PEIR for public review. This update does not change the Project description or the findings of the Draft PEIR. However, to ensure the most current information is provided to the decision-makers, the second to the last sentence of the second paragraph in Section 2.8.2 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ shows the deletions):

> This phase ~~is expected to be~~ *was* completed in ~~fall~~ *summer* 2016. The second phase will widen the existing La Pata Avenue with one additional travel lane in each direction between Ortega Highway and just south of Vista Montana. This phase ~~is expected to~~ start*ed in summer* 2016 and is projected to be completed in 2017 or 2018.

RMV-5 Your comment is noted and the notation has been added to Exhibit 4.4-4. The revised exhibit, which is provided at the end of Section 3.1, contains the following notation in a text box at the lower left hand corner of the exhibit (*red italics* shows the additional text):

Note: The Southern Subregion Habitat Conservation Plan limits the amount of gross acres of development in Planning Area 4 and Planning Area 8. Of the 1,127 acres in Planning Area 4, Ranch Plan development is limited to 515 acres, with an additional 175 acres allowed for reservoir use by the Santa Margarita Water District. Planning Area 8 is 1,349 acres; however, development is limited to 500 acres.

RMV-6 Your comment is noted. Based on the two thresholds for this topical area, the fact that the Project residents would utilize parkland developed as part of the Ranch Plan does not change the findings of the Draft PEIR.

Threshold 4.8-1 asks if the Project would "increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated". The Draft PEIR acknowledges that the Project would add additional population to the area and does not propose providing additional parkland because the Affordable Housing sites are specifically identified for the construction of housing for lower income population in Orange County. In analyzing whether the Project's impact with respect to this threshold, the Draft PEIR relies on the County's Local Park Code requirements, and does identify the amount of parkland that would be required to meet the County's Local Park Code to serve this need (2.56 acres, 3.41 acres, or 5.11 acres of parkland for Scenarios 1, 2, and 3, respectively). When assessing if the increase (as a result of the Project) of the use of existing and planned neighborhood and regional parks or other recreational facilities would result in a substantial or accelerated physical deterioration of the facilities, the Draft PEIR found that, due to the "parks rich" nature of the Ranch Plan, the Project would not result in or accelerate substantial physical deterioration of available and planned recreational facilities, including park facilities.

Similarly, for Threshold 4.8-2, which asks if the Project would "include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment", the Project would not result in any impacts, because the Project does not propose the construction of recreational facilities, nor does it require, based on its size relative to the availability and nature of existing and planned local and regional existing facilities, the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The following text has been added at the end of the first paragraph on page 4.8-6 (*red italics* shows the additional text):

> Given the "parks rich" character of the community, the Project (all development scenarios) would not result in an increase*d* use of existing *and planned* neighborhood *parks* or *the regional parks or* other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *The Orange County General Plan's Housing Element also exempts affordable housing projects from the payment of in-lieu park fees.*

RMV-7 The traffic volumes in the Draft PEIR and accompanying technical report (Appendix E to the Draft PEIR) are consistent with traffic analyses in FEIR 589 and subsequent

traffic analyses prepared for project-level Ranch Plan approvals. The comment specifically identifies a concern regarding the consistency with the traffic analysis done for Planning Areas 3 and 4, and as it relates to the traffic volumes on the segment of Cow Camp Road east of Grandeza Drive (identified as "K" Street in the analysis done for Planning Areas 3 and 4).

A comparison of the traffic generation tables from both the technical reports show the same Ranch Plan generated traffic volumes have been used. For Draft PEIR 623, this information is provided in Table 2-1 of Appendix E. For Planning Areas 3 and 4 this is shown in Tables A-1 (EIR Traffic Generation tables assumed in FEIR 589) and Table 1 (Trip Generation for Planning Areas 3 and 4) of the traffic study.[6] As shown, the total trip generation rates match as do the trips assumed for Planning Areas 3 and 4.

The difference in the traffic volume shown east of Grandeza Drive is related to how the volumes were posted. The traffic study for Planning Areas 3 and 4 posted two volumes east of "K" Street (subsequently named Grandeza Drive), whereas the traffic report prepared for Draft PEIR 623 posts only one traffic volume on Cow Camp Road east of Grandeza Drive. Specifically, the volume shown in the Draft PEIR corresponds to the westerly end of the segment (i.e., just east of Grandeza Drive). A review of the traffic model data that was prepared for the Draft PEIR indicates that the forecast volume on the easterly end of the segment in the 2035 Cumulative condition would vary from 17,000 ADT, with the No Project Alternative and Scenario 1 and 18,000 ADT, with Scenarios 2 and 3. This is consistent with the volume shown in the traffic study for Planning Areas 3 and 4, which estimated 18,000 ADT for that same segment of Cow Camp Road. On the westerly end of the segment, the updated traffic model prepared for the Draft PEIR indicates slightly lower volumes than did the Planning Areas 3 and 4 traffic study, but the difference in volume would not have an effect on the findings of the Planning Areas 3 and 4 report.

[6] To facilitate the review of these Responses to Comments, the referenced traffic generation tables have been provided as Attachment A to this Responses to Comments document.

3.0 CLARIFICATIONS AND REVISIONS AS PART OF THE FINAL PEIR

Revisions and clarifications have been made to the Draft Program Environmental Impact Report (PEIR) based on input received during the public review period and while preparing the responses to comments on the Draft PEIR. None of these clarifications and revisions reflect a substantial change to the Project description, nor would any of the changes result a new impact or intensification of an impact already identified in the Draft PEIR. None of the changes are in response to comments that raise significant environmental points. Additions to the Draft PEIR are shown in *red italicized* text and deletions are shown in ~~red strikethrough~~ text.

3.1 CLARIFICATIONS AND REVISIONS TO THE DRAFT PEIR

Section 2.5, Environmental Setting

The following text is hereby added to page 2-10, following the third paragraph, which discusses regional access (*red italics* shows the additional text).

> *In 2006, Caltrans and the County prepared separate but coordinated engineering and environmental documents for the widening of Ortega Highway. Overall, Ortega Highway is proposed to be widened from Calle Entradero in the City of San Juan Capistrano to a point located 1,900 feet east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue in the County of Orange. The roadway would then transition back to the existing two-lane segment east of Antonio Parkway. Caltrans' document addresses the widening from Calle Entradero to the western boundary of the RMV Planning Area. The County's environmental evaluation for the approximate 1.1-mile segment from the western RMV Planning Area boundary to east of the intersection of Ortega Highway at Antonio Parkway/La Pata Avenue was addressed in the Addendum to FEIR 589 prepared for the Master Area Plan and Subarea Plans for Planning Area 1. The roadway improvements, which widened Ortega Highway to four lanes, were completed for the unincorporated area in 2010. Improvements in the City of San Juan Capistrano are pending once funding is available. Though not related to the Ranch Plan, it should also be noted, that Caltrans completed a major reconstruction of the Ortega/Interstate 5 interchange in 2015.*

Section 2.6.3, Subsequent Approvals and Modifications to the Ranch Plan

The last sentence of the discussion of Cow Camp Road on page 2-15 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show deleted text):

> The extension of the roadway from the eastern edge of Planning Area 2 over to Ortega Highway (known as "Segment 2") is under design. *The roadway will be constructed in phases. It is anticipated that the first phase of construction will extend east from Los Patrones Parkway, located on the eastern edge of Planning Area 2, over Gobernadora Canyon, and continue at-grade for approximately 1.25 miles.* Construction of *the initial phase of the*

> Segment 2 is expected to begin in ~~*2017*~~ *2018* and take *approximately 24*~~18~~ months to complete. *The remaining phases of the roadway will be constructed based on the phasing of development and the availability of funding, until it ultimately connects to Ortega Highway (SR-74).*

The second to the last sentence in the discussion of Water Reservoir Facilities on page 2-16 is modified to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions):

> Additionally, construction *was completed in 2016* ~~initiated in 2015~~ on one 3.0-MG domestic water reservoir and one 2.0-MG recycled water reservoir, both of which are also located in Chiquita Canyon, south of Tesoro High School (SMWD 2015a).

Section 2.8.2, La Pata Avenue Gap Closure and Camino Del Rio Extension Project

The second to the last sentence of the second paragraph in Section 2.8.2 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ show the deleted text):

> This phase ~~is expected to be~~ *was* completed in ~~fall~~ *summer* 2016. The second phase will widen the existing La Pata Avenue with one additional travel lane in each direction between Ortega Highway and just south of Vista Montana. This phase ~~is expected to~~ start*ed in summer* 2016 and is projected to be completed in 2017 or 2018.

Section 4.3, Hydrology and Water Quality

The following changes to the Standard Conditions, provided in Section 4.3.7, reflect County initiated revisions to the Draft PEIR and are designed to ensure the conditions match the current Conditions of Approval. Additionally, SC HWQ-5 has been added. The following changes are hereby revised incorporated into the Final PEIR (*red italics* shows the additional text and ~~red strikethrough~~ show the deleted text):

SC HWQ-1 Prior to issuance of grading or building permits, drainage studies that demonstrate the following shall be submitted to and approved by Manager, Permit Services:

1. All surface runoff and subsurface drainage shall be directed to the nearest acceptable drainage facility, as determined by the Manager, *Permit Services* ~~of Building & Safety, or his/her designee~~.
2. Drainage facilities discharging onto adjacent property shall be designed to imitate the manner in which runoff is currently produced from the site and in a manner meeting the satisfaction of the Manager, Permit Services. Alternatively, the ~~County or its designee~~ *Project applicant* may obtain a drainage acceptance and maintenance agreement, suitable for recordation, from the owner of said adjacent property. All drainage facilities must be consistent with the County of Orange Grading Ordinance and Local Drainage Manual (County of Orange Standard Condition D02).

SC HWQ-2 Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the County's National Pollutant Discharge

Elimination System (NPDES) Implementation Program in a manner meeting the satisfaction of the Manager, OC Inspection*, including:*

- *Demonstrate that all structural Best Management Practices (BMPs) described in the BMP Exhibit from the project's approved WQMP have been implemented, constructed and installed in conformance with approved plans and specifications.*
- *Demonstrate that the applicant has complied with all non-structural BMPs described in the project's WQMP.*
- *Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs (the O&M Plan shall become an attachment to the WQMP.*
- *Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the initial occupants.*
- *Agree to pay for a Special Investigation from the County of Orange for a date twelve (12) months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan.*
- *Demonstrate that the applicant has RECORDED one of the following:*
    1. *The CC&R's (that must include the approved WQMP and O&M Plan) for the project's Home Owner's Association;*
    2. *A water quality implementation agreement that has the approved WQMP and O&M Plan attached; or*
    3. *The final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.*

(County of Orange Standard Condition WQ02).

SC HWQ-4 Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Intake, to demonstrate compliance with the County's NPDES Implementation Program and State water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, *etc.* ~~and other construction materials~~ shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion, or dispersion. The ESCP shall also describe how the ~~County or its designee~~ *applicant* will ensure that all BMPs will be maintained during construction of any future public rights-of-way. The ESCP shall be updated as needed to address the changing circumstances of the Project site. A copy of the current ESCP shall be kept at the Project site and be available for County review on request (County of Orange Standard Condition WQ05).

SC HWQ-5 *Prior to the issuance of any grading or building permits, the applicant shall submit for review and approval by the Manager, Permit Services, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. The applicant shall utilize the Orange County Drainage Area Management Plan*

(DAMP), Model WQMP, and Technical Guidance Manual for reference, and the County's WQMP template for submittal. This WQMP shall include the following:

- *Detailed site and project description*
- *Potential stormwater pollutants*
- *Post-development drainage characteristics*
- *Low Impact Development (LID) BMP selection and analysis*
- *Structural and Non-Structural source control BMPs*
- *Site design and drainage plan (BMP Exhibit)*
- *GIS coordinates for all LID and Treatment Control BMPs*
- *Operation and Maintenance (O&M) Plan that (1) describes the long-term operation and maintenance requirements for BMPs identified in the BMP Exhibit; (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced BMPs; and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced BMPs.*

The BMP Exhibit from the approved WQMP shall be included as a sheet in all plan sets submitted for plan check and all BMPs shall be depicted on these plans. Grading and building plans must be consistent with the approved BMP exhibit. (County of Orange Standard Condition WQ01).

Section 4.4, Land Use

Exhibit 4.4-4, Subarea Boundaries and Affordable Housing Site Locations, has been modified to include the following text, which was provided on the other exhibits in the Draft PEIR that depicted the Planning Areas. The revised exhibit is provided at the end of Section 3.1 (*red italics* shows the additional text):

Note: The Southern Subregion Habitat Conservation Plan limits the amount of gross acres of development in Planning Area 4 and Planning Area 8. Of the 1,127 acres in Planning Area 4, Ranch Plan development is limited to 515 acres, with an additional 175 acres allowed for reservoir use by the Santa Margarita Water District. Planning Area 8 is 1,349 acres; however, development is limited to 500 acres.

Section 4.5, Noise

The following changes to the Standard Conditions, provided in Section 4.5.7, reflect County initiated revisions to the Draft PEIR and are designed to ensure the conditions match the current Conditions of Approval. The following changes are hereby revised incorporated into the Final PEIR (*red italics* shows the additional text and ~~red strikethrough~~ show the deleted text):

SC NOI-2 A. Prior to the issuance of any grading permits, the Project ~~Applicant~~ *proponent* shall produce evidence acceptable to the Manager, Permit Services, that:

The remainder of the standard condition remains unchanged.

SC NOI-3 The ~~Project~~ Applicant shall sound-attenuate all residential lots and dwellings against present and projected noise (which shall be the sum of all noise impacting the project) so that the composite interior standard of 45 dBA CNEL

for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas is not exceeded. The applicant shall provide a report prepared by a County-certified acoustical consultant, which demonstrates that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, as follows:

A. Prior to the recordation of a subdivision map or prior to the issuance of grading permits, as determined by the Manager, ~~Building~~ Permit Services, the applicant shall submit an acoustical analysis report to the Manager, ~~Building~~ Permit Services, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy Condition B below.

B. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, ~~Building~~ Permit Services, for approval along with satisfactory evidence*,* ~~that~~ *which* indicates that the sound-attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

C. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, ~~Building~~ Permit Services (County of Orange Standard Condition N01).

SC NOI-4 Prior to the ~~issuance of any certificates of use and occupancy~~ *final inspection approval*, the applicant shall perform field testing in accordance with Title 24 Regulations to verify compliance with FSTC and FIIC standards if determined necessary by the Manager, ~~Building Inspection~~ *Permit* Services. In the event such a test was previously performed, the applicant shall provide satisfactory evidence and a copy of the report to the Manager, ~~Building Inspection~~ *Permit* Services, as a supplement to the previously required acoustical analysis report (County of Orange Standard Condition N09).

SC NOI-5 Prior to the issuance of any building or grading permits, the applicant shall obtain the approval of the Manager, ~~Building Inspection~~ *Permit* Services, of an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by the Project during its operation shall be controlled in compliance with Orange County Codified Ordinance, Division 6 (Noise Control). The report shall be prepared under the supervision of a County-certified Acoustical Consultant and shall describe the noise generation potential of the project during its operation and the noise mitigation measures, if needed, which shall be included in the plans and specifications of the project to assure compliance with Orange County Codified Ordinance, Division 6 (Noise Control) (County of Orange Standard Condition N08).

Section 4.7 Public Services

On page 4.7-1, the first sentence under the heading "Secured Fire Protection Agreement" is hereby modified to read as follows (*red italics* shows the additional text):

> Development of the Ranch Plan Planned Community (the Ranch Plan) is subject to certain requirements imposed by the County, including provisions relating to fire protection services. As part of these requirements, Ranch*o* Mission Viejo (RMV) entered into two separate Secured Fire Protection Agreements (SFPA) with the Orange County Fire Authority (OCFA).

Page 4.7-3, starting at the third sentence of the first paragraph, is hereby modified to read as follows (*red italics* shows the additional text):

> According to the SFPA, Planning Areas 3, 5, and 8 will each house a station in the future; each station will be built concurrently with its respective Planning Area. *The SFPA does have provisions for interim fire protection facilities to serve new development within the Ranch Plan area prior to construction of permanent fire stations serving the relevant portions of the Ranch Plan area. The SFPA specifies that OCFA and RMV shall meet for the purpose of discussing potential solutions and strategies for addressing interim fire protection needs should the new stations not be fully staffed and operational prior to residential occupancy.*

Section 4.8, Recreation

The text of the last sentence on page 4.8-4 is hereby revised to read as follows (*red italics* shows the additional text and ~~red strikethrough~~ shows the deleted text):

> The San Juan Creek *Class I* Bikeway is *shown* ~~also~~ on the Orange County Transportation Authority's (OCTA's) *Commuter Bikeway Strategic Plan (2009) and the District 5 Bikeways Strategy Report (March 2015)* ~~for regional bikeways~~.

The following text has been added at the end of the first paragraph on page 4.8-6 of the Recreation section:

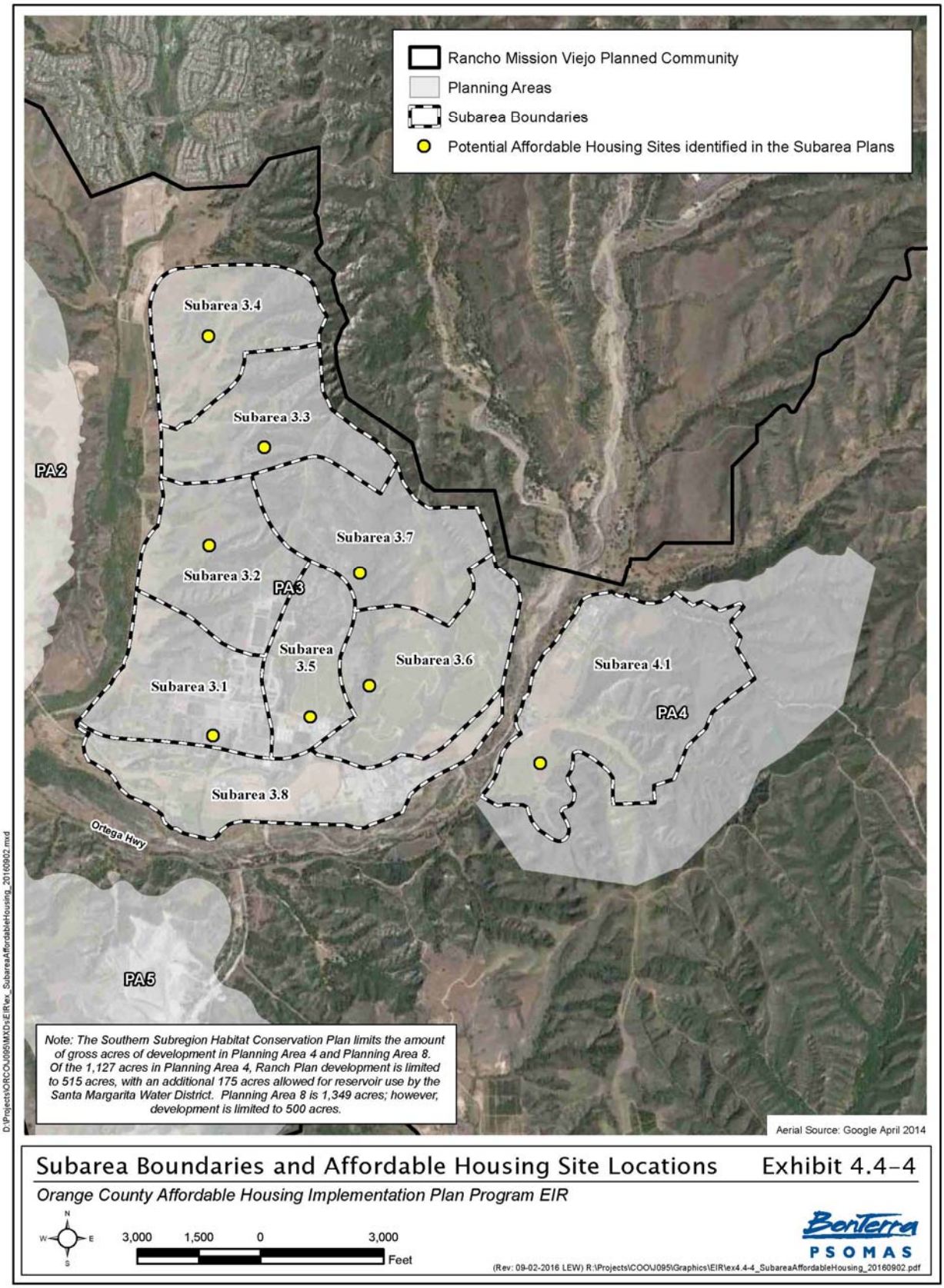
> Given the "parks rich" character of the community, the Project (all development scenarios) would not result in an increase*d* use of existing *and planned* neighborhood *parks* or *the regional parks or* other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *The Orange County General Plan's Housing Element also exempts affordable housing projects from the payment of in-lieu park fees.*

Section 4.9, Transportation

The following text is hereby added after the second sentence in the Mass Transit discussion on page 4.9-85 (*red italics* shows the additional text; strike-out and underlined text reflects the change to the response to reflect the comments in the OCTA November 8, 2016 comment letter):

> The closest transit service is in the vicinity of Ortega Highway and Rancho Viejo Road (near I-5)*; however, this line will be discontinued starting in October 2016*. *Bus Route 91*~~,~~

~~also~~ in San Juan Capistrano~~, will~~ may provide ~~similar~~ connections~~,~~ with stops at the San Juan Capistrano Train Depot and at Mission San Juan Capistrano. There ~~still~~ are currently no bus routes that would extend east to the Ranch Plan area. ~~However, to the north, Bus Route 82 provides a connection at Crown Valley Parkway and Antonio Parkway in Ladera Ranch. Starting in October 2016,~~ In the future, the Community-Based Transit/Circulators Program, known as RanchRide, will operate through a public-private partnership with the County of Orange with funding from OCTA's Measure M2 Project V program. As the program develops, more information about schedules will become available.


Rancho Mission Viejo Planned Community
Planning Areas
Subarea Boundaries
Potential Affordable Housing Sites identified in the Subarea Plans
Subarea 3.4
Subarea 3.3
PA2
Subarea 3.7
Subarea 3.2
PA3
Subarea 3.5
Subarea 3.6
Subarea 3.1
Subarea 4.1
PA4
Subarea 3.8
Ortega Hwy
PA5
Note: The Southern Subregion Habitat Conservation Plan limits the amount of gross acres of development in Planning Area 4 and Planning Area 8. Of the 1,127 acres in Planning Area 4, Ranch Plan development is limited to 515 acres, with an additional 175 acres allowed for reservoir use by the Santa Margarita Water District. Planning Area 8 is 1,349 acres; however, development is limited to 500 acres.
Aerial Source: Google April 2014
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Subarea Boundaries and Affordable Housing Site Locations
Exhibit 4.4-4
Orange County Affordable Housing Implementation Plan Program EIR
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Attachment A

Traffic Generation by Planning Area Tables from the Draft PEIR's Traffic Report (Appendix E) and from the Traffic Report for the Planning Areas 3 and 4 Master Area Plan and Subarea Plans

Table 2-1 Land Use and Trip Generation Summary – Ranch Plan Planned Community at Buildout

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		Inbound	Outbound	Total	Inbound	Outbound	Total	
Planning Area 1 (PA 1)								
All Age Detached Residential	384 DU	73	215	288	246	142	388	3,675
All Age Attached Residential	303 DU	45	148	193	158	91	249	2,457
Age Qualified Detached Residential	116 DU	9	16	25	19	13	32	430
Age Qualified Attached Residential	284 DU	14	23	37	28	17	45	988
Apartments	200 DU	20	82	102	80	44	124	1,330
General Commercial	95 TSF	58	37	95	174	181	355	4,079
Office	30 TSF	41	6	47	8	37	45	330
Park	11 Acres	0	0	0	0	0	0	25
CCRC	480 Units	67	34	101	82	77	159	1,800
Equestrian Facilities	250 Stalls	23	10	33	33	38	71	570
Soccer Complex	6 Fields	4	4	8	86	38	124	428
PA 1 Trip Generation		354	575	929	914	678	1,592	16,112
Planning Area 2 (PA 2)								
All Age Detached Residential	978 DU	186	548	734	626	362	988	9,359
All Age Attached Residential	475 DU	71	233	304	247	143	390	3,852
Age Qualified Detached Residential	721 DU	58	101	159	115	79	194	2,675
Age Qualified Attached Residential	238 DU	12	19	31	24	14	38	828
Apartments	288 DU	29	118	147	115	63	178	1,915
School	1,200 Students	330	264	594	90	96	186	1,746
Urban Activity Center	500 TSF	305	195	500	915	950	1,865	21,470
Specialty Retail	25 TSF	0	0	0	30	38	68	1,108
PA 2 Trip Generation		991	1,478	2,469	2,162	1,745	3,907	42,953
Planning Areas 3 and 4 (PA 3 and PA 4)								
All Age Detached Residential	2,990 DU	568	1,674	2,242	1,914	1,106	3,020	28,614
All Age Attached Residential	2,010 DU	302	985	1,287	1,045	603	1,648	16,301
Age Qualified Detached Residential	2,500 DU	200	350	550	400	275	675	9,275
School	2,600 Students	650	520	1,170	182	208	390	3,354
Neighborhood Commercial	145 TSF	77	49	126	254	276	530	5,817
Business Park	305 TSF	363	64	427	101	284	385	3,794
Urban Activity Center	2,950 TSF	2,006	384	2,390	738	2,036	2,774	26,580
PA 3 and PA 4 Trip Generation		4,166	4,026	8,192	4,634	4,788	9,422	93,735

Table 2-1 Land Use and Trip Generation Summary – Ranch Plan Planned Community at Buildout (continued)

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		Inbound	Outbound	Total	Inbound	Outbound	Total	
Planning Area 5 (PA 5)								
PA 5 Trip Generation		308	569	877	355	382	737	7,079
Planning Area 8 (PA 8)								
All Age Detached Residential	300 DU	38	187	225	178	85	263	2,745
All Age Attached Residential	200 DU	21	110	131	101	46	147	1,536
Age Qualified Detached Residential	600 DU	37	111	148	122	77	199	2,098
Age Qualified Attached Residential	300 DU	18	56	74	61	39	100	1,049
General Commercial	100 TSF	188	89	277	203	250	453	4,549
R&D/Business Park	1,000 TSF	682	157	839	293	736	1,029	9,700
Golf Course	258 Acres	37	12	49	25	47	72	697
Resort Hotel	250 Rooms	61	18	79	38	74	112	1,085
PA 8 Trip Generation		1,082	740	1,822	1,021	1,354	2,375	23,459
Total								
Ranch Plan Planned Community Total Trip Generation		6,901	7,388	14,289	9,086	8,947	18,033	183,338

Abbreviations: ADT – average daily trips
CCRC – continuing care retirement community
DU – dwelling units
TSF – thousand square feet

Table A- 1 EIR Trip Generation Summary

TRIPENDS BY LU TYPE

LU	AMOUNT	UNITS	AM PEAK HOUR				PM PEAK HOUR				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
Single Family - Detached	4,212	DU	528	2,634	3,162	8.2%	2,495	1,192	3,687	9.6%	38,544
Single Family - Attached	2,808	DU	293	1,548	1,841	8.5%	1,423	641	2,064	9.6%	21,560
Senior Housing	5,360	DU	330	991	1,321	7.0%	1,092	688	1,780	9.5%	18,739
Senior Apartments	640	DU	39	119	158	7.1%	130	83	213	9.5%	2,237
Apartments	980	DU	89	445	534	8.4%	416	192	608	9.6%	6,335
General Commercial	750	TSF	1,413	663	2,076	6.1%	1,522	1,879	3,401	10.0%	34,118
Specialty Retail	230	TSF	377	172	549	6.1%	394	499	893	10.0%	8,936
R&D/Business Park	3,660	TSF	2,496	573	3,069	8.6%	1,074	2,692	3,766	10.6%	35,501
Office	560	TSF	466	115	581	8.3%	223	516	739	10.5%	7,013
Golf Course	1,057	ACRES	153	47	200	7.0%	104	189	293	10.3%	2,854
Elementary/Middle School	4,200	STU.	540	52	592	11.2%	144	249	393	7.4%	5,284
High School	900	STU.	116	11	127	11.2%	31	53	84	7.4%	1,132
Resort Hotel	250	ROOMS	61	18	79	7.3%	38	74	112	10.3%	1,085
TOTAL	**Total**		**6,901**	**7,388**	**14,289**	**7.8%**	**9,086**	**8,947**	**18,033**	**9.8%**	**183,338**

INTERNAL/EXTERNAL TRIPENDS BY LU CATEGORY

LAND USE	Int/Ext TYPE	LU	AM PEAK HOUR				PM PEAK HOUR				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
Residential	Internal	14,000	258	2,235	2,493	9.5%	1,694	550	2,244	8.6%	26,225
	External		1,021	3,502	4,523	7.4%	3,862	2,246	6,108	10.0%	61,190
	Total		1,279	5,737	7,016	8.0%	5,556	2,796	8,352	9.6%	87,415
Percent Internal Tripends		DU	20.2%	39.0%	35.5%		30.5%	19.7%	26.9%		30.0%
Commercial/School	Internal	1,000	1,628	175	1,803	4.3%	1,699	2,111	3,810	9.1%	42,050
	External		818	723	1,541	20.8%	392	569	961	13.0%	7,420
	Total		2,446	898	3,344	6.8%	2,091	2,680	4,771	9.6%	49,470
Percent Internal Tripends		TSF	66.6%	19.5%	53.9%		81.3%	78.8%	79.9%		85.0%
Business	Internal	4,220	598	73	671	5.1%	292	1,025	1,317	10.1%	13,100
	External		2,578	680	3,258	9.8%	1,147	2,446	3,593	10.8%	33,353
	Total		3,176	753	3,929	8.5%	1,439	3,471	4,910	10.6%	46,453
Percent Internal Tripends		TSF	18.8%	9.7%	17.1%		20.3%	29.5%	26.8%		28.2%
Total	Internal		2,484	2,483	4,967	6.1%	3,685	3,686	7,371	9.1%	81,375
	External		4,417	4,905	9,322	9.1%	5,401	5,261	10,662	10.5%	101,963
	Total		6,901	7,388	14,289	7.8%	9,086	8,947	18,033	9.8%	183,338
Percent Internal Tripends			36.0%	33.6%	34.8%		40.6%	41.2%	40.9%		44.0%

Source: Ranch Plan EIR Traffic Study, Tables 3-1 and 3-2

Table 1 Trip Generation and Land Use Summary for PA's 3 and 4

LU Type	Amount	Trip Type	AM Peak Hour				PM Peak Hour				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
SFD DU	2,990 DU	Rate	0.19	0.56	0.75		0.64	0.37	1.01		9.57
		Trips	568	1,674	2,242	7.8%	1,914	1,106	3,020	10.6%	28,614
SFA DU	2,010 DU	Rate	0.15	0.49	0.64		0.52	0.30	0.82		8.11
		Trips	302	985	1,287	7.9%	1,045	603	1,648	10.1%	16,301
AQ Residential	2,500 DU	Rate	0.08	0.14	0.22		0.16	0.11	0.27		3.71
		Trips	200	350	550	5.9%	400	275	675	7.3%	9,275
Commercial	145 TSF	Rate	0.53	0.34	0.87		1.75	1.90	3.65		40.12
		Trips	77	49	126	2.2%	254	276	530	9.1%	5,817
Business Park	305 TSF	Rate	1.19	0.21	1.40		0.33	0.93	1.26		12.44
		Trips	363	64	427	11.3%	101	284	385	10.1%	3,794
UAC	2,950 TSF	Rate	0.68	0.13	0.81		0.25	0.69	0.94		9.01
		Trips	2,006	384	2,390	9.0%	738	2,036	2,774	10.4%	26,580
Schools	2,600 STU	Rate	0.25	0.20	0.45		0.07	0.08	0.15		1.29
		Trips	650	520	1,170	34.9%	182	208	390	11.6%	3,354
Total			**4,166**	**4,026**	**8,192**	**8.7%**	**4,634**	**4,788**	**9,422**	**10.1%**	**93,735**

LU Category	Amount	Units	AM Peak Hour				PM Peak Hour				ADT
			In	Out	Total	%ADT	In	Out	Total	%ADT	
MR Residential	5,000	DU	870	2,659	3,529	7.9%	2,959	1,709	4,668	10.4%	44,915
AQ Residential	2,500	DU	200	350	550	5.9%	400	275	675	7.3%	9,275
Comm./UAC	3,400	TSF	2,446	497	2,943	8.1%	1,093	2,596	3,689	10.2%	36,191
Schools	2,600	Students	650	520	1,170	34.9%	182	208	390	11.6%	3,354
TOTAL			**4,166**	**4,026**	**8,192**	**8.7%**	**4,634**	**4,788**	**9,422**	**10.1%**	**93,735**

Abbreviations: SFD – Single Family Detached Residential
SFA – Single Family Attached Residential
AQ – Age Qualified Residential (age restricted housing)
UAC – Urban Activity Center
Comm. – Commercial Shopping Center
MR – Market Rate Housing (comprising Single Family Detached and Attached Housing)
DU – Dwelling Units

Source: ITE (9th Ed.) Trip Rates; refer to Appendix A (Table A-5 for detailed information).

The peak hour trips by direction are also shown here, representing the key measure for traffic analysis purposes, since traffic impacts are identified using peak hour intersection performance.