

APPENDIX I

Noise Technical Report



Noise Analysis for the
Otay Mesa Community
Plan Update,
City of San Diego
Project No. 30330/304032
SCH No. 2004651076

Prepared for

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A handwritten signature in black ink, appearing to read "Karyl Palmer".

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Acronyms

ALUCP	Airport Land Use Compatibility Plan
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	community noise equivalent level
CPU	Community Plan Update
dB	decibel
dB(A)	A-weighted decibel level
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
I-805; I-5	Interstate 805; Interstate 5
L _{eq}	average-equivalent noise level
LDC	Land Development Code
MHPA	Multi-Habitat Planning Area
MSCP	Multiple Species Conservation Program
OMDD	Otay Mesa Development District
POE	Port of entry
SANDAG	San Diego Association of Governments
SPL	sound pressure level
SR	State Route
STC	sound transmission class

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1.0 Summary

This report evaluates potential local and regional noise impacts associated with the Otay Mesa Community Plan Update (CPU). The Otay Mesa community planning area is located in the southern portion of the city of San Diego. This report evaluates potential noise impacts by comparing the existing noise levels in Otay Mesa to the future noise levels associated with the CPU.

The CPU is an update to the adopted 1981 Otay Mesa Community Plan Approval of the CPU amends the General Plan and would establish land use designations and policies to guide future development consistent with the City's General Plan (2008). The CPU expresses the General Plan policies through the provision of more site-specific recommendations.

Construction activities related to implementation of the CPU would potentially generate short-term noise levels in excess of 75 A-weighted decibel (dB) average sound level (dB(A) L_{eq}) at adjacent properties, which could therefore be potentially significant. The City regulates noise associated with construction equipment and activities through enforcement of noise ordinance standards (e.g., days of the week and hours of operation) and imposition of conditions of approval for building or grading permits. However, as the degree of success of these measures cannot be adequately known for each specific project at this program-level of analysis, mitigation would be required.

Additionally, noise levels associated with the earthwork, construction, and surface preparation for future development within the CPU area could result in short-term, temporary noise impacts that could adversely affect sensitive species within the Multi-Habitat Planning Area (MHPA). Construction noise during the breeding season would be considered adverse to this species. This impact is analyzed in the biological resources report for the CPU and in the environmental impact report (EIR).

Based on traffic noise modeling, noise levels at existing and proposed residential use areas in the western portion of the CPU area would exceed the City's compatible thresholds for residential land uses. Therefore, mitigation measures have been developed to require future land uses to develop project-level analyses that would demonstrate conformance with City standards. However, because the degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be adequately known for each specific future project at this program-level of analysis, the program-level impact related to exterior and interior noise impacts remains significant and unavoidable, even with adherence to the Mitigation Framework.

Based on the available airport noise contours and the CPU land use plan, the CPU would not expose people residing or working in the CPU area to excessive noise levels due to airport operations.

The juxtaposition of other residential/commercial/industrial land uses would potentially result in a noise incompatibility of adjacent land uses. Compliance with regulations and policies would reduce direct and indirect impacts associated with the generation of noise levels in excess of standards established in the General Plan or Noise Ordinance. However, no project-level site plans have been considered as part of the environmental review of the CPU. Without detailed operational data it cannot be verified that future projects would be capable of reducing noise levels to comply with City standards, thus additional analyses would be required to provide verification that City standards have been met. While the identified mitigation would verify compliance with appropriate standards, it cannot assure that potential noise levels associated with development implemented in accordance with the CPU would be reduced to below a level of significance.

2.0 Introduction

The CPU area is located in the southern portion of the city of San Diego. The CPU would update the adopted 1981 Otay Mesa Community Plan. The purpose of this study is to assess the potential for significant adverse noise impacts to result from the CPU. Figure 1 shows the regional location of the CPU. Figure 2 provides an aerial photograph of the CPU. Figure 3 shows the CPU land uses. Noise impacts were assessed in accordance with the City of San Diego California Environmental Quality Act (CEQA) Significance Determination Thresholds (City of San Diego 2011).

2.1 Project Description

The CPU is an update to the adopted 1981 Otay Mesa Community Plan. The CPU provides goals and policies for future development within the CPU area. Approval of the CPU amends the General Plan. The concurrent rezone would rescind the Otay Mesa Development District (OMDD) and update zoning regulations within the CPU area. Amendments to the Land Development Code (LDC) would also be required to create implementing zones for proposed commercial and industrial land use designations under the CPU.



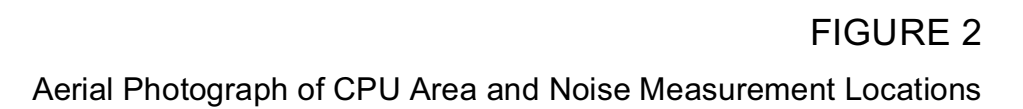
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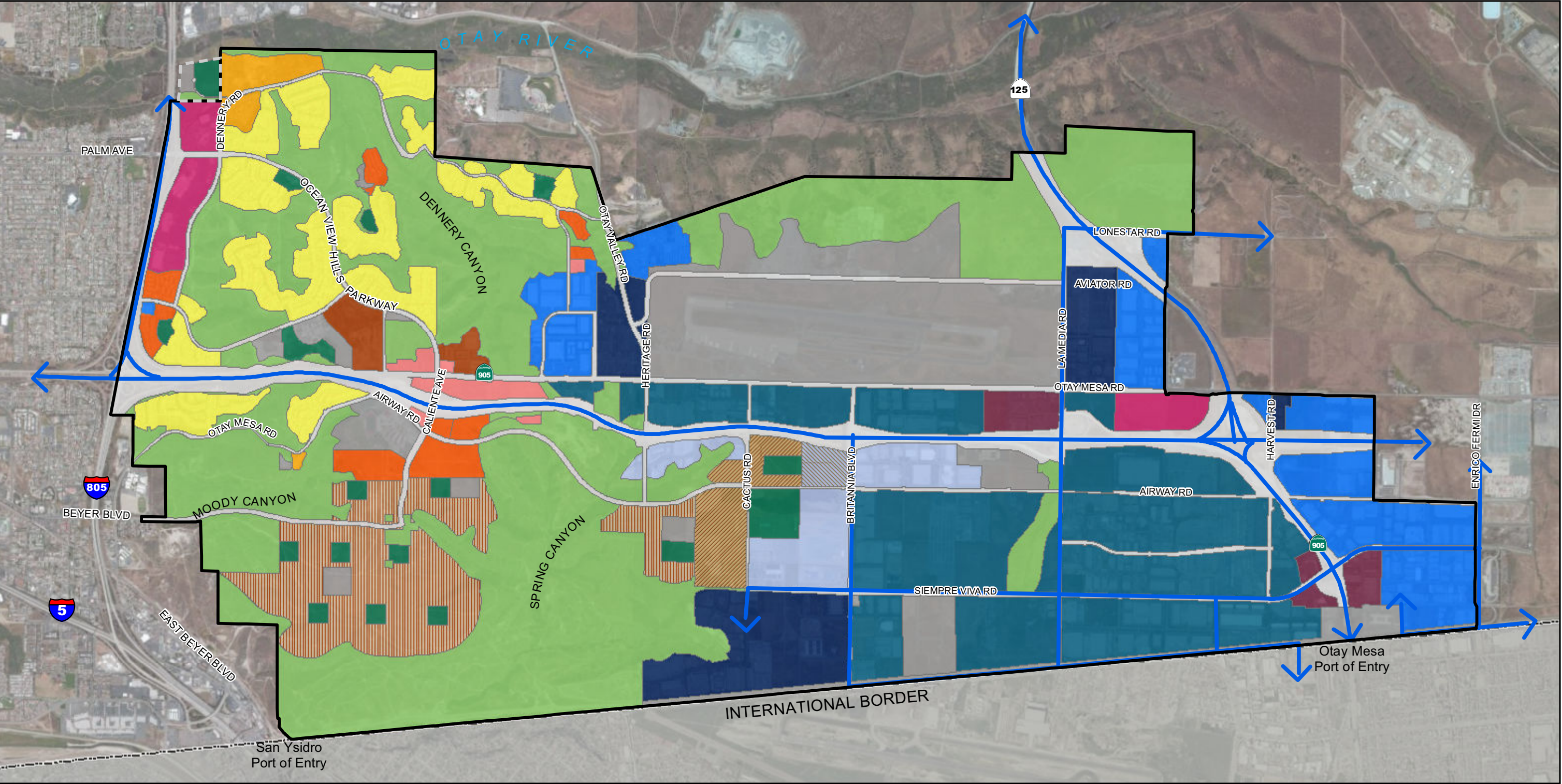
Otay Mesa Community Plan Boundary

FIGURE 1
Regional Location of
Otay Mesa Community Plan Area

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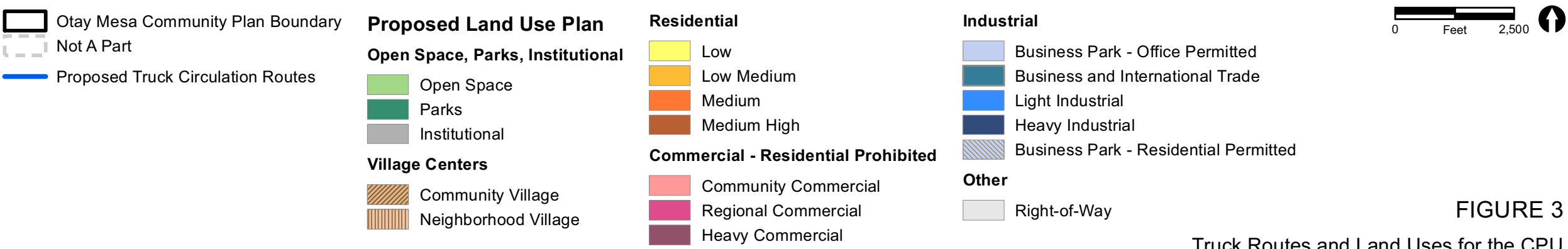
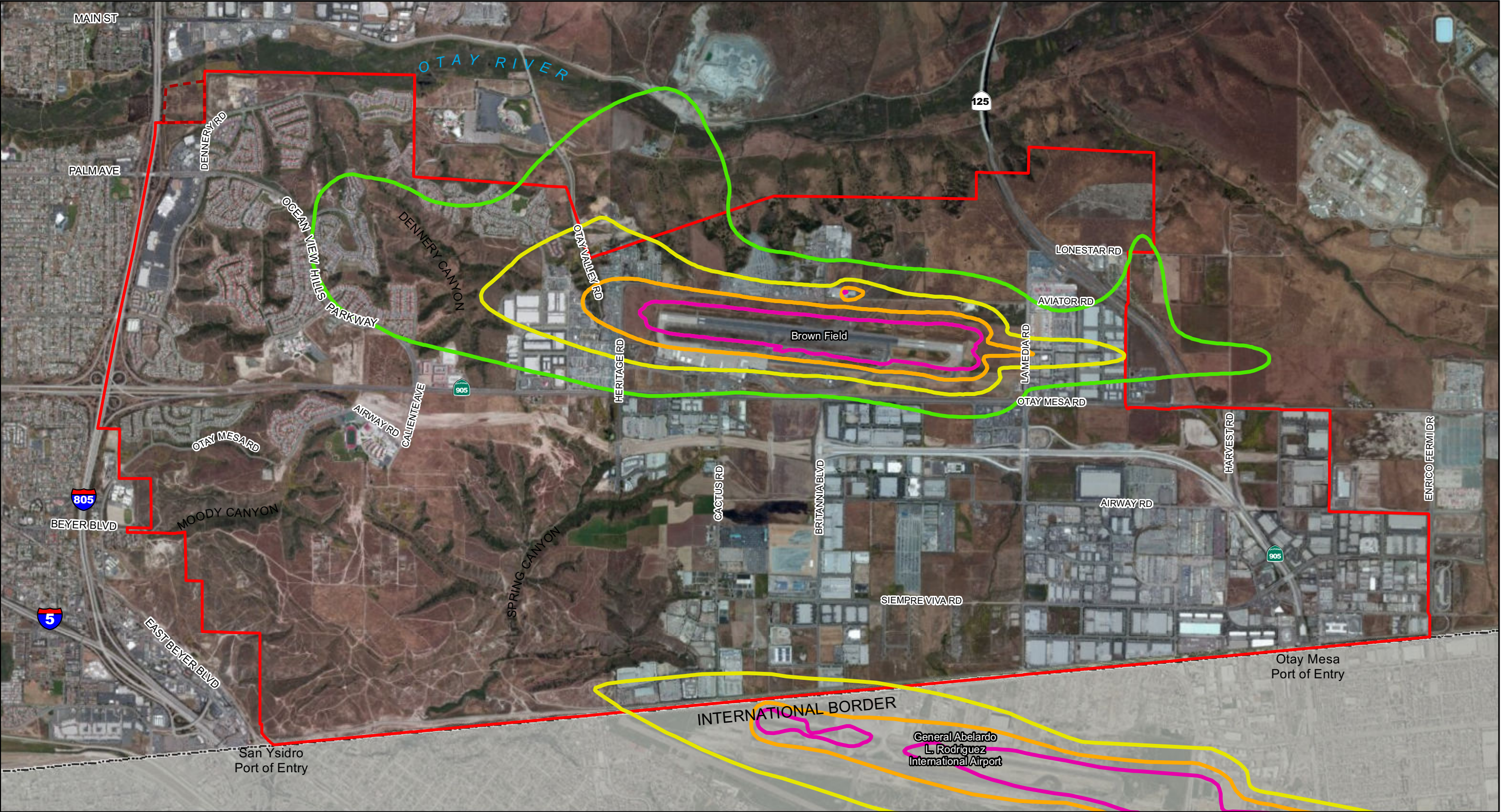








FIGURE 3
Truck Routes and Land Uses for the CPU

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 Otay Mesa Community Plan Boundary
 Not A Part

Airport Noise Contours
 60 CNEL
 65 CNEL
 70 CNEL
 75 CNEL

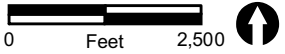


FIGURE 4
Airport Noise Contours

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Approval of the CPU would establish land use designations and policies to guide future development consistent with the City's General Plan (2008). The CPU expresses the General Plan policies through the provision of more site-specific recommendations.

The CPU includes nine elements based on those promulgated in the City's General Plan, with goals and policies for each. The nine elements are: Land Use; Mobility; Urban Design; Economic Prosperity; Public Facilities, Services, and Safety; Recreation; Conservation; Noise; and Historic Preservation. Procedures for implementation of the goals and policies are also set forth.

The CPU area is bounded by the City of Chula Vista (north), Interstate 805 (I-805; west), International Border (south), and unincorporated San Diego County (east).

2.2 Development Summary

The CPU encompasses a broad range of the land use designations defined in the General Plan and contains a more detailed description and distribution of land uses than the citywide General Plan. Land uses include residential with a variety of density ranges, village centers, commercial, industrial, open space, parks, and institutional. The existing adopted community plan and CPU land use distributions are summarized in Table 1. Figure 3 shows the CPU land uses.

**TABLE 1
OTAY MESA LAND USE DISTRIBUTION**

Land Use	Adopted Community Plan	CPU
Open Space	2,570 acres	2,748 acres
Residential	1,269 acres/12,400 du	757 acres/7,648 du
Commercial	452 acres	316 acres
Village Area		
Residential	0 acres	695 acres/11,126 du
Mixed Use	0 acres	30 acres
Industrial	2,839 acres	2,426 acres
Institutional	1,027 acres	1,165 acres
Parks	64 acres	161 acres
Right-of-Way	1,098 acres	1,021 acres
TOTAL	9,319 acres/12,400 du	9,319 acres/18,774 du

CPU = Otay Mesa Community Plan Update

Five districts interconnected through activities and infrastructure would help to organize and form the community of Otay Mesa. The districts include:

- Northwest District, which generally comprises the existing development in the northwestern portion of Otay Mesa and the seven Precise Planning Area neighborhoods: California Terraces, Dennery Ranch, Hidden Trails, Remington Hills, Riviera del Sol, Robinhood Ridge, and Santee Investments.

- Southwest District, which includes the area south of State Route 905 (SR-905) and west of Spring Canyon. This district would be primarily residential in nature with a mixed-use core including civic, and neighborhood-serving commercial uses and services.
- Central District, which generally is the land along the Airway Road corridor. The Central district would comprise three primary land use areas: Central Village, Grand Park, and Education Complex.
- Airport District, which generally is Brown Field and industrial land surrounding the airport.
- South District, which includes the existing port of entry (POE) and the uses intended to support the international business and trade uses that are necessary for the movement of goods across the border.

3.0 Analysis Methodology

3.1 Fundamentals of Noise

Simply stated, noise is unwanted sound. Sound is caused by minute pressure variations in the air—above and below static atmospheric pressure—that are sensed by the human ear. The number of these minute pressure variations over time is referred to as the frequency of the sound.

Sound in the ambient environment is composed of a wide range of frequencies. Because the human ear is not equally sensitive at all

frequencies, two different noises that have the same sound pressure level (SPL) may be perceived as having different levels of loudness. Therefore, the SPL is not a measure of the loudness of a sound. In order to obtain levels that more closely approximate the perceived loudness of noise by humans, *frequency weighting* of the sound level is used.

The most common frequency weighting used for assessment of noise in the ambient environment is *A-weighting*. A-weighting is a frequency correction that often correlates

Sound Pressure Level

$$SPL = 10 \log_{10} \left(\frac{p}{p_o} \right)^2$$

Where:

p = the sound pressure of the signal above atmospheric pressure, and

p_o = the reference pressure (standardized at 20 micropascals¹)

¹A micropascal is a unit of pressure equal to a millionth of a newton per square meter.

well with the subjective response of humans to noise. The noise at any given location is a function of the noise produced by the source, the propagation path between the source and the receiver, and the sensitivity of the receiver. To reduce noise levels at a sensitive receiver, the only available techniques are to reduce the noise at the source, to interrupt the propagation path between the source and the receiver, or to increase the distance between the source and the receiver. The propagation path is the path that the sound travels between its source and the receiver.

The evaluation of the effects of noise in the city of San Diego must consider the sound pressure levels to which people will be exposed, the duration of those levels, and the time of day—or night—at which they occur. While different people will respond differently to any specific situation, overall response is primarily a factor of these three main elements. The City of San Diego uses the community noise equivalent level (CNEL) as the measure for assessing transportation noise impacts with respect to land use planning.

3.2 Applicable Standards

3.2.1 Standards Applicable to Construction Noise

Construction noise is regulated by the City's Municipal Code. Section 59.5.0404 of the Municipal Code, the Noise Abatement and Control Ordinance, states that:

- A. It shall be unlawful for any person, between the hours of 7:00 P.M. of any day and 7:00 A.M. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. . . .
- B. . . . it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 A.M. to 7:00 P.M.

3.2.2 Standards Applicable to Traffic Noise

Future residents and visitors to the CPU area of the city of San Diego would be exposed to noise from vehicle traffic on area roadways, from aircraft operations at Brown Field, and from other local noise sources. In the city of San Diego, noise standards are

expressed in terms of the average-equivalent noise level (L_{eq}) and the CNEL. The L_{eq} is the level of a steady sound which, in the stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound. The CNEL is a 24-hour A-weighted decibel (dB) average sound level [dB(A) L_{eq}] from midnight to midnight obtained after the addition of 5 dB to sound levels occurring between 7:00 P.M. and 10:00 P.M. and 10 dB to the sound levels occurring between 10:00 P.M. and 7:00 A.M. Adding 5 dB and 10 dB to the evening and nighttime hours, respectively, accounts for the added sensitivity of humans to noise during these time periods.

The City's Noise Element of the General Plan specifies compatibility standards for different categories of land use. The land-use compatibility standards are summarized in Table 2 (City of San Diego 2008).

The City also specifies that residential structures shall be designed to prevent the intrusion of exterior noises such that interior noise levels attributable to exterior sources do not exceed 45 CNEL in noise-sensitive interior rooms. This conforms to Title 24 of the California Code of Regulations that requires that multiple dwelling units' interior noise levels, due to exterior sources, not exceed 45 dB CNEL.

Title 24 of the California Code of Regulations further specifies that for multiple dwelling units, if the exterior noise level exceeds 60 CNEL, an acoustical analysis shall demonstrate that the design would achieve the prescribed interior noise standard. The City of San Diego assumes that standard construction techniques would provide a 15-dB reduction of exterior noise levels to an interior receiver. With these criteria, standard construction would be assumed to result in interior noise levels of 45 CNEL or less when exterior sources are 60 CNEL or less. When exterior noise levels are greater than 60 CNEL, consideration of specific construction techniques would be required.

The City also specifies that the interior noise level due to exterior sources is not to exceed 45 CNEL for institutional uses and is not to exceed 50 CNEL for office buildings and commercial uses.

3.2.3 Standards Applicable to Aircraft Noise

The Airport Land Use Compatibility Plan (ALUCP) for Brown Field identifies land uses compatible with annual noise levels due to operations at Brown Field. These land use compatibility noise levels are to be used in determining whether a proposed land use is consistent with ALUCP policies and guidelines. Table 3 presents the land uses and the compatible noise levels.

TABLE 2
LAND USE NOISE COMPATIBILITY GUIDELINES

Land Use Category	Exterior Noise Exposure [CNEL]			
	60	65	70	75
<i>Open Space, Parks, and Recreational</i>				
Community and Neighborhood Parks; Passive Recreation				
Regional Parks; Outdoor Spectator Sports, Golf Courses; Athletic Fields; Water Recreational Facilities; Horse Stables; Park Maintenance Facilities				
<i>Agricultural</i>				
Crop Raising and Farming; Aquaculture, Dairies; Horticulture Nurseries and Greenhouses; Animal Raising, Maintaining and Keeping; Commercial Stables				
<i>Residential</i>				
Single Units; Mobile Homes; Senior Housing		45		
Multiple Units; Mixed-Use Commercial/Residential; Live Work; Group Living Accommodations		45	45	
<i>Institutional</i>				
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12 Educational Facilities; Libraries; Museums; Places of Worship; Child Care Facilities		45		
Vocational or Professional Educational Facilities; Higher Education Institution Facilities (Community or Junior Colleges, Colleges, or Universities)		45	45	
Cemeteries				
<i>Sales</i>				
Building Supplies/Equipment; Food, Beverage, and Groceries; Pets and Pet Supplies; Sundries, Pharmaceutical, and Convenience Sales; Wearing Apparel and Accessories			50	50
<i>Commercial Services</i>				
Building Services; Business Support; Eating and Drinking; Financial Institutions; Assembly and Entertainment; Radio and Television Studios; Golf Course Support			50	50
Visitor Accommodations		45	45	45
<i>Offices</i>				
Business and Professional; Government; Medical, Dental, and Health Practitioner; Regional and Corporate Headquarters			50	50
<i>Vehicle and Vehicular Equipment Sales and Services Use</i>				
Commercial or Personal Vehicle Repair and Maintenance; Commercial or Personal Vehicle Sales and Rentals; Vehicle Equipment and Supplies Sales and Rentals; Vehicle Parking				
<i>Wholesale, Distribution, Storage Use Category</i>				
Equipment and Materials Storage Yards; Moving and Storage Facilities; Warehouse; Wholesale Distribution				
<i>Industrial</i>				
Heavy Manufacturing; Light Manufacturing; Marine Industry; Trucking and Transportation Terminals; Mining and Extractive Industries				
Research and Development				50

	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level. Activities associated with the land use may be carried out.
		Outdoor Uses	
	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number for occupied areas. Feasible noise mitigation techniques should be analyzed and incorporated to make the outdoor activities acceptable.
		Outdoor Uses	
	Incompatible	Indoor Uses	New construction should not be undertaken. Severe noise interference makes outdoor activities unacceptable.
		Outdoor Uses	

SOURCE: City of San Diego 2008.

**TABLE 3
BROWN FIELD NOISE COMPATIBILITY CRITERIA**

Land Use Category¹ <i>Note: Multiple categories may apply to a project</i>	Exterior Noise Exposure (CNEL)			
	60-65	65-70	70-75	75-80
Agricultural and Animal-Related				
Horse stables; livestock breeding or farming	A	A	A	
Nature preserves; wildlife preserves				
Interactive nature exhibits	A			
Zoos	A	A		
Agriculture (except residences and livestock); greenhouses; fishing				A
Recreational				
Children-oriented neighborhood parks; playgrounds	A			
Campgrounds; recreational vehicle/motor home parks				
Community parks; regional parks; golf courses; tennis courts; athletic fields; outdoor spectator sports; fairgrounds; water recreation facilities		A		
Recreation buildings; gymnasiums; club houses; athletic clubs; dance studios		50	50	
Public				
Outdoor amphitheaters	A			
Children's schools (K-12); day care centers (>14 children)	45			
Libraries	45			
Auditoriums; concert halls; indoor arenas; places of worship	45	45		
Adult schools; colleges; universities ²	45	45		
Prisons; reformatories		50		
Public safety facilities (e.g., police, fire stations)		50	50	
Cemeteries; cemetery chapels; mortuaries		45 A	45 A	
Residential, Lodging, and Care				
Residential (including single-family, multi-family, and mobile homes); family day care homes (≤14 children)	45			
Extended-stay hotels; retirement homes; assisted living; hospitals; nursing homes; intermediate care facilities	45			
Hotels; motels; other transient lodging ³	45	45	45	
Commercial and Industrial				
Office buildings; office areas of industrial facilities; medical clinics; clinical laboratories; radio, television, recording studios		50	50	
Retail sales; eating/drinking establishments; movie theaters; personal services		50	50 B	
Wholesale sales; warehouses; mini/other indoor storage			50 C	
Industrial manufacturing; research & development; auto, marine, other sales & repair services; car washes; gas stations; trucking, transportation terminals			50 C	
Extractive industry; utilities; road, rail right-of-ways; outdoor storage; public works yards; automobile parking; automobile dismantling; solid waste facilities				50 C
Animal shelters/kennels	50	50	50	

TABLE 3
BROWN FIELD NOISE COMPATIBILITY CRITERIA
(cont.)

Land Use Acceptability		Interpretation/Comments
	Compatible	<p>Indoor Uses: Standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor community noise equivalent level (CNEL).</p> <p>Outdoor Uses: Activities associated with the land use may be carried out with essentially no interference from aircraft noise.</p>
45 50	Conditional ⁴	<p>Indoor Uses: Building structure must be capable of attenuating exterior noise to the indoor CNEL indicated by the number, standard construction methods will normally suffice.</p> <p>Outdoor Uses: CNEL is acceptable for outdoor activities, although some noise interference may occur.</p>
A B C	Conditional ⁴	<p>Indoor and Outdoor Uses:</p> <p>A Caution should be exercised with regard to noise-sensitive outdoor uses; these uses are likely to be disrupted by aircraft noise events; acceptability is dependent upon characteristics of the specific use.⁵</p> <p>B Outdoor dining or gathering places incompatible above 70 CNEL.</p> <p>C Sound attenuation must be provided for associated office, retail, and other noise-sensitive indoor spaces sufficient to reduce exterior noise to an interior maximum of 50 CNEL.</p>
	Incompatible	Use is not compatible under any circumstances.

SOURCE: San Diego County Regional Airport Authority 2010

¹Land uses not specifically listed shall be evaluated, as determined by the ALUC, using the criteria for similar uses.

²Applies only to classrooms, offices, and related indoor uses. Laboratory facilities, gymnasiums, outdoor athletic facilities, and other uses to be evaluated as indicated for those land use categories.

³Lodging intended for stays by an individual person of no more than 25 days consecutively and no more than 90 days total per year; facilities for longer stays are in the extended-stay hotel category.

⁴An *aviation easement* is required for any project situated on a property lying within the projected 65 CNEL noise contour. See Policy 2.11.5 and Policy 3.3.3(d).

⁵Noise-sensitive land uses are ones for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. The most common types of noise-sensitive land uses include, but are not limited to, the following: residential, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child-care facilities, and certain types of passive recreational parks and open space.

3.2.4 Standards Applicable to On-Site Generated Noise

In addition to allowing development that would result in future sensitive receptors being located in potentially adverse noise areas, there is the potential that the CPU would allow uses that generate noise. Impacts to sensitive receptors generated by activities at a given location are regulated by the City's Municipal Code. The Noise Ordinance specifies maximum one-hour average sound level limits at the boundary of a property. These maximum one-hour sound level limits are the maximum noise levels allowed at any point on or beyond the property boundaries due to activities occurring on the property. Where two or more zones adjoin, the sound level limit is the arithmetic mean of the respective limits for the two zones. Table 4 shows the exterior noise limits specified in the City's Noise Control Ordinance.

**TABLE 4
EXTERIOR NOISE LIMITS**

Receiving Land Use Category	Noise Level [dB(A)]		
	7:00 A.M. to 7:00 P.M.	7:00 P.M. to 10:00 P.M.	10:00 P.M. to 7:00 A.M.
Single Dwelling Units	50	45	40
Multiple Dwelling Units (up to a maximum density of 1 dwelling unit/2,000 square feet)	55	50	45
All Other Residential	60	55	50
Commercial	65	60	60
Industrial or Agricultural	75	75	75

dB(A) = A-weighted decibel (dB) level

3.3 Existing Noise Level Measurements

To determine the existing noise conditions and assess the potential impacts of noise resulting from the CPU, noise measurements were taken in the project vicinity by Jessica Fleming, RECON Acoustical Analyst on Wednesday, June 15, 2011 and by Karyl Palmer on October 18, 2012. Noise measurements were taken with one Larson–Davis Model 820 Type 1 Integrating Sound Level Meter, serial number 1824. The following parameters were used:

Filter: A-weighted
Response: Fast
Time History Period: 5 second

The meter was calibrated prior to each day's measurements. On June 15, five ground-floor measurements (5 feet above the ground) were taken at five locations in the project vicinity. On October 18, an additional three ground-floor measurements (5 feet above the ground) were taken at three locations in the project vicinity.

3.4 Vehicle Traffic Noise Analysis

3.4.1 Traffic Parameters

Traffic noise occurs adjacent to every roadway and is directly related to the traffic volume, speed, and mix of vehicles. Existing and future traffic volumes for the adopted Otay Mesa Community Plan and the CPU were obtained from the traffic study prepared for the CPU (Urban Systems Associates, Inc. 2012). Posted speeds for each roadway were obtained from the San Diego Association of Governments (SANDAG; 2011) and were assumed for the traffic noise projections.

The CPU experiences an atypically large percentage of truck traffic given its high volume of industrial activity and circulation patterns. Truck volumes for I-805, SR-905, SR-125, and SR- 11 were obtained from California Department of Transportation (Caltrans) truck counts (Caltrans 2009). For I-805, a traffic mix of 93.1 percent cars, 4.2 percent medium trucks, and 2.7 percent heavy trucks was assumed. For SR-905, SR-125, and SR-11, a traffic mix of 91.9 percent cars, 5.5 percent medium trucks, and 2.6 heavy trucks was observed.

Figure 3 shows the CPU truck routes. As shown, truck routes are on I-805, SR-905, SR-125, Britannia Boulevard, La Media, Enrico Fermi Drive, Siempre Viva Road, and Lone Star Road. For Britannia Boulevard, La Media, Enrico Fermi Drive, Siempre Viva Road, and Lone Star Road, a traffic mix of 65 percent cars, 10 percent medium trucks, 20 percent heavy trucks, 2 percent buses, and 3 percent motorcycles was assumed. Based on a future truck forecast performed for previously CPU land use scenarios, this truck volume is conservatively high (Steve Manganiello/Katz, Okitsu & Associates, pers. communication 2006).

For the remaining circulation roadways that are not truck routes, a standard mix of 90 percent cars, 3 percent medium trucks, 2 percent heavy trucks, 2 percent buses, and 3 percent motorcycles was assumed.

The adopted Community Plan includes the extension of La Media Road north of Lone Star Road to cross the Otay River Valley on a bridge. However, the latest City of Chula Vista General Plan Circulation Element Update has deleted this crossing from Chula Vista to the south. This extension of La Media Road is not included in the CPU.

Table 5 summarizes the vehicle traffic parameters used in this analysis for each roadway segment for the Adopted Community Plan, the CPU.

**TABLE 5
VEHICLE TRAFFIC PARAMETERS**

Street	Segment	Traffic Mix (percent)			Speed (mph)	ADT	
		Autos	Medium Trucks	Heavy Trucks		Adopted Plan	Proposed Plan
Airway Road	Old Otay Mesa Rd. to Caliente Ave.	90	3	2	40	20,500	10,500
Airway Road	Caliente Ave. to Heritage Rd.	90	3	2	40	59,000	38,000
Airway Road	Heritage Rd. to Cactus Rd.	90	3	2	40	39,500	60,500
Airway Road	Cactus Rd. to Britannia Blvd.	90	3	2	40	46,500	44,500
Airway Road	Britannia Blvd. to La Media Rd.	90	3	2	40	39,000	35,000
Airway Road	La Media Rd. to Harvest Rd.	90	3	2	40	54,500	34,000
Airway Road	Harvest Rd. to Sanyo Ave.	90	3	2	40	49,500	26,500
Airway Road	Sanyo Ave. to Paseo de las Americas	90	3	2	40	20,500	10,000
Airway Road	Paseo de las Americas to Michael Faraday Dr.	90	3	2	40	17,000	9,500
Airway Road	Michael Faraday Dr. to Enrico Fermi Dr.	90	3	2	40	16,000	12,000
Airway Road	Enrico Fermi Dr. to Siempre Viva Rd.	90	3	2	40	15,000	12,500
Avendia De Las Vistas	Otay Valley Rd. to Vis ta Santo Domingo	90	3	2	30	9,000	7,000
Avendia De Las Vistas	Vista Santo Domingo to Dennery Rd.	90	3	2	30	25,000	19,500
Avenida Cos ta Azul	Otay Mesa Rd. to St. Andrews Ave.	90	3	2	35	18,000	19,000
Aviator Road	Heritage Rd. to La Media Rd.	90	3	2	45	15,500	23,000
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	90	3	2	35	24,500	32,500
Beyer Boulevard	Old Otay Mesa Rd. to Caliente Ave.	90	3	2	45	3,000	31,000
Britannia Boulevard	Otay Mesa Rd. to SR-905	90	3	2	40	19,500	17,500
Britannia Boulevard	SR-905 to Airway Rd.	65	10	20	40	52,000	63,000
Britannia Boulevard	Airway Rd. to Siempre Viva Rd.	65	10	20	40	32,500	44,500
Britannia Boulevard	Siempre Viva Rd. to South End	65	10	20	40	33,000	22,000
Cactus Road	Otay Mesa Rd. to Airway Rd.	90	3	2	45	35,000	40,500
Cactus Road	Airway Rd. to Siempre Viva Rd.	90	3	2	45	23,000	40,500
Cactus Road	Siempre Viva Rd. to South End	90	3	2	45	29,500	11,000
Caliente Avenue	Otay Mesa Rd. to SR-905	90	3	2	30	39,000	38,000
Caliente Avenue	Otay Mesa Rd. to SR-905	90	3	2	30	39,000	38,000
Caliente Avenue	SR-905 to Airway Rd.	90	3	2	40	38,000	32,000

TABLE 5
VEHICLE TRAFFIC PARAMETERS
(continued)

Street	Segment	Traffic Mix (percent)			Speed (mph)	ADT	
		Autos	Medium Trucks	Heavy Trucks		Adopted Plan	Proposed Plan
Caliente Avenue	Airway Rd. to Beyer Blvd.	90	3	2	40	48,000	46,000
Caliente Avenue	Beyer Blvd. to Siempre Viva Rd.	90	3	2	40	48,000	41,000
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	90	3	2	30	7,500	9,500
Camino Maquiladora	Pacific Rim Ct. to Cactus Rd.	90	3	2	30	6,000	7,500
Camino Maquiladora	Cactus Rd. to Continental St.	90	3	2	30	5,500	6,000
Centurion Street	Airway Rd. to Gigantic St.	90	3	2	40	18,500	6,000
Continental Street	South of Otay Mesa Rd.	90	3	2	35	4,500	4,500
Continental Street	North of Airway Rd.	90	3	2	35	10,000	12,000
Corporate Center Drive	Progressive Ave. to Innovative Dr.	90	3	2	40	13,000	8,000
Corporate Center Drive	Otay Mesa Rd. to Progressive Ave.	90	3	2	40	24,500	19,500
Corporate Center Drive	South End to Otay Mesa Rd.	90	3	2	40	17,500	17,500
Datsun Street	Innovative Dr. to Heritage Rd.	90	3	2	45	31,000	30,000
Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	90	3	2	35	23,500	19,500
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	90	3	2	35	26,000	23,000
Del Sol Boulevard	Riviera Pointe to Dennery Rd.	90	3	2	35	26,000	23,000
Del Sol Boulevard	Dennery Rd. to I-805	90	3	2	35	20,000	16,000
Dennery Road	Palm Ave. to Del Sol Blvd.	90	3	2	35	28,500	28,000
Dennery Road	Palm Ave. to Regatta Ln.	90	3	2	35	21,000	19,500
Dennery Road	Regatta Ln. to Red Coral Ln.	90	3	2	35	15,000	12,500
Dennery Road	Red Coral Ln. to Black Coral Ln.	90	3	2	35	15,000	12,500
Dennery Road	Black Coral Ln. to East End	90	3	2	35	21,500	16,500
Emerald Crest Dr.	Otay Mesa Rd. to South End	90	3	2	35	25,000	25,000
Enrico Fermi Drive	Siempre Viva Rd. to Via de la Amistad	65	10	20	40	10,500	10,500
Enrico Fermi Drive	Airway Rd. to Siempre Viva Rd.	65	10	20	40	8,000	8,000
Enrico Fermi Drive	SR-11 to Airway Rd.*	65	10	20	40	17,000	15,500
Excellante Street	Airway Rd. to Gigantic St.	90	3	2	40	19,500	6,000
Exposition Way/Vista Santo Domingo	Avenida De Las Vistas to Corporate Dr.	90	3	2	35	17,000	12,500
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	90	3	2	40	9,000	12,500
Gigantic Street	Excellante St. to Centurion St.	90	3	2	40	19,500	6,000

TABLE 5
VEHICLE TRAFFIC PARAMETERS
(continued)

Street	Segment	Traffic Mix (percent)			Speed (mph)	ADT	
		Autos	Medium Trucks	Heavy Trucks		Adopted Plan	Proposed Plan
Harvest Road	Otay Center Dr. to Siempre Viva Rd.	90	3	2	40	38,000	10,000
Harvest Road	Airway Rd. to Otay Center Dr.	90	3	2	40	34,000	16,000
Harvest Road	South of Otay Mesa Rd.	90	3	2	40	11,000	8,500
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	90	3	2	35	27,000	12,000
Heritage Road/Otay Valley Road	Avenida De Las Vistas to Datsun St.	90	3	2	45	77,500	75,500
Heritage Road/Otay Valley Road	Datsun St. to Otay Mesa Rd.	90	3	2	45	47,500	48,000
Heritage Road/Otay Valley Road	Otay Mesa Rd. to SR-905	90	3	2	45	17,500	23,500
Heritage Road/Otay Valley Road	SR-905 to Airway Rd.	90	3	2	45	52,000	35,000
Heritage Road/Otay Valley Road	Main St. to Avenida De Las Vistas	90	3	2	45	87,000	83,000
Heritage Road/Otay Valley Road	Airway Rd. to Siempre Viva Rd.	90	3	2	45	58,000	N/A
I-805	Main St. to Palm Ave.	93.1	4.2	2.7	65	263,000	248,000
I-805	Palm Ave. to SR-905	93.1	4.2	2.7	65	232,500	222,000
I-805	SR-905 to I-5	93.1	4.2	2.7	65	107,500	122,000
I-805	I-5 to Border	93.1	4.2	2.7	65	127,500	135,500
Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	90	3	2	30	16,000	15,000
La Media Road	Lone Star Rd. to Aviator Rd.	65	10	20	45	64,500	19,500
La Media Road	Aviator Rd. to Otay Mesa Rd.	65	10	20	45	64,500	22,500
La Media Road	Otay Mesa Rd. to SR-905	65	10	20	45	48,000	37,500
La Media Road	SR-905 to Airway Rd.	65	10	20	40	75,500	64,000
La Media Road	Airway Rd. to Siempre Viva Rd.	65	10	20	40	32,000	33,000
La Media Road	Birch Rd. to Lone Star Rd.	65	10	20	40	93,000	N/A
Lone Star Road	La Media Rd. to SR-125	65	10	20	40	38,000	N/A
Lone Star Road	SR-125 to Piper Ranch Rd.	65	10	20	40	55,000	35,000
Lone Star Road	SR-125 to Piper Ranch Rd.	65	10	20	40	55,000	35,000
Lone Star Road	Piper Ranch Rd. to City/County Boundary	65	10	20	40	54,500	36,000
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	90	3	2	35	16,500	8,000
Michael Faraday Drive	Airway Rd. to Siempre Viva Rd.	90	3	2	30	9,500	6,500
Michael Faraday Drive	Siempre Viva Rd. to Marconi Dr.	90	3	2	30	5,500	8,000
Ocean View Hills Pkwy	Dennerly Rd. to Del Sol Blvd.	90	3	2	45	27,000	22,000

TABLE 5
VEHICLE TRAFFIC PARAMETERS
(continued)

Street	Segment	Traffic Mix (percent)			Speed (mph)	ADT	
		Autos	Medium Trucks	Heavy Trucks		Adopted Plan	Proposed Plan
Ocean View Hills Pkwy	Del Sol Blvd. to Street "A"	90	3	2	40	45,000	35,000
Ocean View Hills Pkwy	Street A to Otay Mesa Rd.	90	3	2	40	23,500	23,500
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	90	3	2	40	22,000	22,000
Old Otay Mesa Road	Airway Rd. to Crescent Bay Dr.	90	3	2	40	20,000	14,500
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	90	3	2	40	21,500	16,000
Otay Center Drive	Harvest Rd. to Siempre Viva Rd.	90	3	2	35	14,000	15,500
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	90	3	2	40	36,500	24,000
Otay Mesa Road	Street A to Caliente Ave.	90	3	2	45	32,000	26,000
Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	90	3	2	45	78,000	72,500
Otay Mesa Road	Corporate Center Dr. to Innovative Dr.	90	3	2	45	36,000	51,500
Otay Mesa Road	Innovative Dr. to Heritage Rd.	90	3	2	45	42,000	46,500
Otay Mesa Road	Heritage Rd. to Cactus Rd.	90	3	2	50	74,000	76,500
Otay Mesa Road	Cactus Rd. to Britannia Blvd.	90	3	2	50	47,500	44,000
Otay Mesa Road	Britannia Blvd. to Ailsa Ct.	90	3	2	50	58,500	50,500
Otay Mesa Road	Ailsa Ct. to La Media Rd.	90	3	2	50	49,500	42,500
Otay Mesa Road	La Media Rd. to Piper Ranch Rd.	90	3	2	45	50,000	54,000
Otay Mesa Road	Piper Ranch Rd. to SR-125	90	3	2	45	22,500	28,500
Otay Mesa Road	SR-125 to Harvest Rd.	90	3	2	45	42,500	36,000
Otay Mesa Road	Harvest Rd. to Sanyo Ave.	90	3	2	45	38,500	32,000
Otay Mesa Road	Sanyo Ave. to Enrico Fermi Dr.	90	3	2	40	14,000	7,500
Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	90	3	2	45	4,000	4,500
Palm Ave.	Piccard Ave to I-805	90	3	2	35	69,500	N/A
Palm Ave.	I-805 to Dennery Rd.	90	3	2	45	69,500	59,500
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	90	3	2	35	33,500	16,500
Paseo de las Americas	Siempre Viva Rd. to Marconi Dr.	90	3	2	35	16,000	15,000
Piper Ranch Rd.	Lone Star Rd. to Otay Mesa Rd.	90	3	2	40	17,000	20,500
Piper Ranch Rd.	Lone Star Rd. to Otay Mesa Rd.	90	3	2	40	17,000	20,500
Progressive Ave.	Corporate Center Dr. to Innovative Dr.	90	3	2	30	17,000	11,500
Sanyo Ave.	Otay Mesa Rd. to Airway Rd.	90	3	2	45	43,000	24,500

TABLE 5
VEHICLE TRAFFIC PARAMETERS
(continued)

Street	Segment	Traffic Mix (percent)			Speed (mph)	ADT	
		Autos	Medium Trucks	Heavy Trucks		Adopted Plan	Proposed Plan
Siempre Viva Rd.	Cactus Rd. to Britannia Blvd.	90	3	2	40	44,500	37,000
Siempre Viva Rd.	Britannia Blvd. to La Media Rd.	90	3	2	40	52,500	42,500
Siempre Viva Rd.	La Media Rd. to Harvest Rd.	90	3	2	40	34,500	40,500
Siempre Viva Rd.	Harvest Rd. to Otay Center Dr.	90	3	2	40	35,000	34,000
Siempre Viva Rd.	Otay Center Dr. to SR-905	90	3	2	40	64,500	60,000
Siempre Viva Rd.	SR-905 to Paseo de las Americas	90	3	2	40	72,000	63,000
Siempre Viva Rd.	Paseo de las Americas to Michael Faraday Dr.	90	3	2	40	20,500	23,000
Siempre Viva Rd.	Michael Faraday Dr. to Enrico Fermi Dr.	90	3	2	40	21,000	21,000
Siempre Viva Rd.	Enrico Fermi Dr. to SR-11	90	3	2	40	21,000	17,500
Siempre Viva Rd.	Caliente Ave. to West Terminus	91.9	5.5	2.6	65	47,000	10,000
Siempre Viva Rd.	Heritage Rd. to Cactus Rd.	91.9	5.5	2.6	65	48,000	N/A
SR-11	SR-905 to Enrico Fermi Dr.	91.9	5.5	2.6	65	50,500	47,000
SR-11	Enrico Fermi Dr. to Siempre Viva Rd	91.9	5.5	2.6	65	25,000	24,500
SR-11	Siempre Viva Rd. to Border	91.9	5.5	2.6	65	39,500	39,500
SR-125	Birch Rd. to Lone Star Rd.	91.9	5.5	2.6	65	102,500	155,500
SR-125	Lone Star Rd. to SR-905	91.9	5.5	2.6	65	76,000	115,500
SR-905	Picador Blvd. to I-805	91.9	5.5	2.6	65	144,500	128,500
SR-905	I-805 to Caliente Ave.	91.9	5.5	2.6	65	253,500	221,000
SR-905	Caliente Ave. to Heritage Rd.	91.9	5.5	2.6	65	224,000	196,000
SR-905	Heritage Rd. to Britannia Blvd.	91.9	5.5	2.6	65	193,000	173,000
SR-905	Britannia Blvd. to La Media Rd.	91.9	5.5	2.6	65	167,000	154,000
SR-905	La Media Rd. to SR-125	91.9	5.5	2.6	65	121,000	103,500
SR-905	SR-125 to Siempre Viva Rd.	91.9	5.5	2.6	65	103,000	99,000
SR-905	Siempre Viva Rd. to Border	91.9	5.5	2.6	65	64,500	64,500
St. Andrews Ave.	Otay Mesa Center Rd. to La Media Rd.	90	3	2	30	20,500	13,500
Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	90	3	2	40	19,500	13,500

ADT = average daily traffic

3.4.2 Analysis of Traffic Noise

The Federal Highway Administration (FHWA) Traffic Noise Model algorithms were used to calculate distances to noise contours for each roadway. The FHWA model takes into account traffic mix, speed, and volume; roadway gradient; relative distances between sources, barriers, and sensitive receptors; and shielding provided by intervening terrain or structures.

The analysis of the noise environment considered that the topography was flat with no intervening terrain between sensitive land uses and roadways. Because there are no obstructions, predicted noise levels are higher than would actually occur. In actuality buildings and other obstructions along the roadways would shield distant receivers from the traffic noise.

A large portion of the project area is undeveloped with soft ground conditions. Therefore, soft site conditions were used in this analysis. Furthermore, soft site conditions would account for noise attenuation due to shielding from buildings and other obstructions.

4.0 Existing Conditions

The CPU is subject to various existing noise sources including traffic on circulation element roadways, traffic on I-805, SR-125, SR-905, aircraft from Brown Field and General Abelardo L. Rodriguez International Airport, and industrial and commercial activities, including the heavy truck traffic associated with them.

4.1 Vehicle Traffic Noise

As part of this analysis, ambient noise conditions were measured in the planning area. In order to provide a qualitative assessment of the variability of noise throughout the study area, eight daytime noise measurements that were 15 minutes in duration were made throughout the study area.

The measurement locations are shown in Figure 2 and were chosen to obtain existing noise levels in order to characterize the existing ambient noise condition. The noise measurement data are contained in Attachment 1.

Measurements 1–5 were taken on June 15, 2011; at this time, SR-905 was under construction. SR-905 now connects the Otay Mesa POE with regional freeways I-5 and I-805. Phase 1 from the Otay Mesa POE to Airway Road was completed at the time of the June 2011 noise measurements. Also completed was the SR-905 link with I-805. The Phase 2 connection to I-805 was completed in 2012. Before the Phase 2 link was

completed, traffic traveling on SR-905 was diverted onto Otay Mesa Road. Therefore, SR-905/Otay Mesa Road experienced high traffic volumes including heavy truck traffic at the time of the first noise measurements. Measurements 6–8 were taken after SR-905 completion.

Measurement 1 was taken adjacent to Ocean View Hills Parkway in the residential area of Otay Mesa. The main source of noise at the measurement location was traffic on Ocean View Hills Parkway. The speed limit on this portion of Ocean View Hills Parkway is 45 miles per hour (mph). Noise levels were measured for 15 minutes, and traffic was counted during the measurement period. The average measured noise level at 40 feet from the centerline of Ocean View Hills Parkway was 72.3 dB(A) L_{eq} .

Measurement 2 was taken in a commercial parking lot on a hill overlooking I-805. The main source of noise at the measurement location was traffic on I-805. Noise levels were measured for 15 minutes. The average measured noise level was 80.9 dB(A) L_{eq} .

Measurement 3 was taken adjacent to SR-905/Otay Mesa Road. The speed limit on this portion of Otay Mesa Road is 45 mph. Noise levels were measured for 15 minutes. The average measured noise level at approximately 85 feet from the centerline was 77.3 dB(A) L_{eq} .

Measurement 4 was taken adjacent to Airway Road in an industrial portion of the CPU. Because of the amount of industrial uses, Airway Road experiences high heavy truck volumes. The speed limit on this portion of Airway Road is 40 mph. Noise levels were measured for 15 minutes, and traffic was counted during the measurement period. The average measured noise level at 30 feet from the centerline was 72.6 dB(A) L_{eq} .

Measurement 5 was taken adjacent to Siempre Viva Road. Like Airway Road, Siempre Viva Road experiences high heavy truck volumes. The speed limit on this portion of Siempre Viva Road is 40 mph. Noise levels were measured for 15 minutes, and traffic was counted during the measurement period. The average measured noise level at 60 feet from the centerline was 72.1 dB(A) L_{eq} .

Measurements 6–8 were taken on October 18, 2012; at this time, SR-905 had been completed.

With the completion of SR-905, Otay Mesa Road experiences less traffic volumes including heavy truck traffic than in previous years.

Measurement 6 was taken adjacent to SR-905/Otay Mesa Road near Innovative Drive. The speed limit on this portion of Otay Mesa Road is 45 mph. Noise levels were measured for 15 minutes. The average measured noise level at approximately 93 feet from the centerline was 68.7 dB(A) L_{eq} .

Measurement 7 was taken adjacent to a semi-trailer storage area overlooking SR-125. The main source of noise at the measurement location was traffic on SR-125. Noise levels were measured for 15 minutes. The average measured noise level was 61.5 dB(A) L_{eq} .

Measurement 8 was taken on Cactus Road, adjacent to SR-905. The main source of noise at the measurement location was traffic on SR-905. Noise levels were measured for 15 minutes. The average measured noise level was 72.0 dB(A) L_{eq} .

Table 6 presents the results of the noise measurements. Table 7 summarizes the 15-minute traffic counts.

**TABLE 6
MEASURED NOISE LEVELS**

Location	Date	Average Noise Level [dB(A)]	Traffic Noise Sources	Distance From Centerline (feet)	Noise Level at 50 feet from Source [dB(A)]
1	06/15/11	72.3	Ocean View Hills Parkway	40	71.3
2	06/15/11	72.7	I-805	330	80.9
3	06/15/11	77.3	SR-905/Otay Mesa Road	85	79.6
4	06/15/11	74.8	Airway Road	30	72.6
5	06/15/11	72.1	Siempre Viva Road	60	72.9
6	10/18/12	68.7	Otay Mesa Road	93	71.4
7	10/18/12	55.2	SR-125	215	61.5
8	10/18/12	66.0	SR-905	197	72.0

dB(A) = A-weighted decibel (dB) level

**TABLE 7
15-MINUTE TRAFFIC COUNTS**

Location	Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motor-cycles
1	Ocean View Hills Parkway	134	3	1	0	1
4	Airway Road	49	4	38	2	4
5	Siempre Viva Road	68	5	28	2	6

4.2 Air Traffic Noise

Brown Field and General Abelardo L. Rodriguez International Airport in Tijuana also generate noise within the CPU. Figure 4 shows the existing noise contours associated with operations at these airports (San Diego County Regional Airport Authority 2003, 2010). As shown, the primary source of aircraft noise in the CPU is due to operations at Brown Field. Only a small portion of the CPU is located within the 65-CNEL contour line of the General Abelardo L. Rodriguez International Airport.

4.3 Other Sources of Noise

Other sources of noise within the CPU are due to the normal activities associated with a given land use. For example, within residential areas noise sources include dogs, landscaping activities, and parties. Commercial uses include car washes, fast food restaurants, and auto repair facilities. Sources of noise in industrial and manufacturing areas may include heavy machinery and truck loading/unloading. Residential uses located adjacent to commercial and industrial uses would be exposed to noise associated with these land uses.

5.0 Future Acoustical Environment and Impacts

5.1 Construction Noise Impacts

Temporary or periodic noise increases could result from construction activities within the CPU. Noise associated with the demolition, earthwork, construction, and surface preparation for projects approved under the CPU would result in short-term impacts to adjacent residential properties. A variety of noise-generating equipment would be used during the construction phase such as scrapers, dump trucks, backhoes, front-end loaders, jackhammers, and concrete mixers, along with others.

Table 8 indicates the types of construction equipment typically involved in construction projects. This type of equipment can individually generate noise levels that range between 78 and 91 dB(A) L_{eq} at 50 feet from the source, as listed in Table 8.

The exact location of projects and construction activities approved under the CPU are not known at this time. It is likely that sensitive receptors would be located in the vicinity of construction activities. The City of San Diego regulates noise associated with construction equipment and activities through its Noise Abatement and Control Ordinance. If construction activities exceed the limitations set forth in Section 59.5.0404 of the City's Noise Abatement and Control Ordinance (see Section 2.2.1 above), then noise impacts would be significant.

Any construction resulting from the adoption of the CPU must comply with this requirement. As noted above, construction equipment would generate noise levels between 80 and 90 dB at 50 feet from the source when in operation. At the 500-foot boundary of the limitation for construction equipment, the sound pressure level would be 20 dB less than a noise measurement taken at 50 feet. Depending on the nature of the

TABLE 8
MEASURED NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT

Equipment	Noise Level at 50 feet (dB(A) L_{eq})	Typical Duty Cycle (%)
Auger Drill Rig	85	20
Backhoe	80	40
Blasting	94	1
Chain Saw	85	20
Clam Shovel	93	20
Compactor (ground)	80	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
Impact Pile Driver (diesel or drop)	95	20
Insitu Soil Sampling Rig	84	20
Jackhammer	85	20
Mounted Impact Hammer (hoe ram)	90	20
Paver	85	50
Pneumatic Tools	85	50
Pumps	77	50
Rock Drill	85	20
Rock Crusher	95	50
Scraper	85	40
Tractor	84	40
Vacuum Excavator (vac-truck)	85	40
Vibratory Concrete Mixer	80	20
Vibratory Pile Driver	95	20

SOURCE: FHWA 2008.

KVA = kilovolt amps

construction including the duration of specific activities, nature of the equipment involved, location of the particular receiver, and nature of intervening barriers, construction noise within 500 feet of a residential zone could range from less than 60 dB(A) L_{eq} to as much as 90 dB(A) L_{eq} . Grading activities are estimated to generate worst-case average noise levels of 84 dB(A) equivalent sound level (L_{eq}) at a distance of 50 feet (Bolt, Beranek, and Newman, Inc. 1971). Construction noise levels of 84 dB(A) would attenuate to 75 dB(A) at 140 feet. Therefore, significant impacts would occur if residential uses are located closer than 140 feet of construction activities.

Therefore, construction activities related to implementation of the CPU would potentially generate short-term noise levels in excess of 75 dB(A) L_{eq} at adjacent properties and would therefore be potentially significant. The City regulates noise associated with construction equipment and activities through enforcement of noise ordinance standards (e.g., days of the week and hours of operation) and imposition of conditions of approval for building or grading permits. However, as the degree of success of these measures cannot be adequately known for each specific project at this program-level of analysis, mitigation would be required.

Additionally, noise levels associated with the earthwork, construction, and surface preparation for future development within the CPU area would result in short-term, temporary noise impacts that would adversely affect coastal California gnatcatchers within the MHPA. Construction noise during the period of March 1 to August 15 in excess of 60 dB(A) CNEL would expose coastal California gnatcatchers to noise levels considered adverse to this species. As this is a noise analysis, this information was provided to the project biologist, and mitigation measures have been specified in the EIR and biology report prepared for the CPU that would reduce these impacts.

5.2 Traffic Noise Impacts and Land Use Compatibility

The methods used in the analysis of future conditions are described in the Analysis Methodology section of this report. Future traffic parameters used are shown in Table 5.

The distances to the 60, 65, 70, and 75 CNEL noise contours for freeways and major roadways are shown in Table 9. A complete list of distances to the 60, 65, 70, and 75 CNEL noise contours for all roadway segments for the adopted community plan and the CPU are included in Attachment 2. Distances to the noise contours assume a soft, flat site with no intervening barriers or obstructions. Future noise contours for the adopted community plan and CPU traffic volumes as well as the proposed land uses for the adopted community plan and the CPU are shown in Figures 5 and 6, respectively.

TABLE 9
FUTURE TRAFFIC NOISE CONTOUR DISTANCES FOR FREEWAYS AND MAJOR ROADWAYS

Roadway	Segment	Contour Distances at Buildout of Adopted Community Plan (feet)				Contour Distances at Buildout of CPU (feet)			
		75 CNEL	70 CNEL	65 CNEL	60 CNEL	75 CNEL	70 CNEL	65 CNEL	60 CNEL
Airway Road	Old Otay Mesa Road to Caliente Avenue	37	79	170	366	23	50	109	234
Airway Road	Caliente Avenue to Heritage Road	74	159	343	740	55	119	256	552
Airway Road	Heritage Road to Cactus Road	57	122	263	566	75	162	349	752
Airway Road	Cactus Road to Britannia Boulevard	63	136	293	631	61	132	285	613
Airway Road	Britannia Boulevard to La Media Road	56	121	261	561	52	113	242	522
Airway Road	La Media Road to Harvest Road	70	151	326	702	51	110	238	512
Airway Road	Harvest Road to Sanyo Avenue	66	142	305	658	43	93	201	434
Britannia Boulevard	Otay Mesa Road to SR-905	35	76	164	354	33	71	153	329
Britannia Boulevard	SR-905 to Airway Road	167	359	774	1,667	189	408	879	1,895
Britannia Boulevard	Siempre Viva Road to South End	122	263	566	1,219	150	324	697	1,503
Britannia Boulevard	Airway Road to Siempre Viva Road	123	265	571	1,231	94	202	436	940
La Media Road	Lone Star Road to Aviator Road	212	457	984	2,120	95	206	443	955
La Media Road	Aviator Road to Otay Mesa Road	212	457	984	2,120	105	226	488	1,050
La Media Road	Otay Mesa Road to SR-905	174	375	808	1,741	148	318	685	1,477
La Media Road	SR-905 to Airway Road	214	461	992	2,138	191	412	889	1,915
La Media Road	Airway Road to Siempre Viva Road	121	260	560	1,206	123	265	571	1,231
La Media Road	Birch Road to Lone Star Road	246	529	1,140	2,456	0	0	1	1
Otay Mesa Road	Street A to Caliente Avenue	58	126	271	583	51	109	236	507
Otay Mesa Road	Caliente Avenue to Corporate Center Drive	106	227	490	1,056	101	217	467	1,005
Otay Mesa Road	Corporate Center Drive to Innovative Drive	63	136	293	630	80	172	372	800
Otay Mesa Road	Innovative Drive to Heritage Road	70	151	324	699	75	161	347	748
Otay Mesa Road	Heritage Road to Cactus Road	119	257	554	1,193	122	263	566	1,220
Otay Mesa Road	Cactus Road to Britannia Boulevard	89	191	412	888	84	182	391	843
Otay Mesa Road	Britannia Boulevard to Ailsa Court	102	220	473	1,020	92	199	429	925
Otay Mesa Road	Ailsa Court to La Media Road	91	197	423	912	82	178	383	824
Otay Mesa Road	La Media Road to Piper Ranch Road	78	169	364	785	83	178	383	826
Otay Mesa Road	Piper Ranch Road to SR-125	46	99	214	461	54	116	250	539
Otay Mesa Road	SR-125 to Harvest Road	70	152	327	704	63	136	293	630
Otay Mesa Road	Harvest Road to Sanyo Avenue	66	142	306	659	58	126	271	583
Otay Mesa Road	Sanyo Avenue to Enrico Fermi Drive	28	61	132	284	19	40	87	187
Siempre Viva Road	Cactus Road to Britannia Boulevard	61	132	285	613	54	117	252	542
Siempre Viva Road	Britannia Boulevard to La Media Road	68	147	318	684	59	128	276	595
Siempre Viva Road	La Media Road to Harvest Road	52	111	240	517	58	124	267	576
Siempre Viva Road	Harvest Road to Otay Center Drive	52	113	242	522	51	110	238	512
Siempre Viva Road	Otay Center Drive to SR-905	79	169	364	785	75	161	347	748
Siempre Viva Road	SR-905 to Paseo de las Americas	84	182	392	845	77	167	359	773
Siempre Viva Road	Paseo de las Americas to Michael Faraday Drive	37	79	170	366	39	85	183	395
Siempre Viva Road	Michael Faraday Drive to Enrico Fermi Drive	37	80	172	372	37	80	172	372
Siempre Viva Road	Enrico Fermi Drive to SR-11	37	80	172	372	33	71	153	329
Siempre Viva Road	Caliente Avenue to East Beyer Boulevard	146	315	678	1,460	52	112	242	520
Siempre Viva Road	Heritage Road to Cactus Road	148	319	687	1,481	0	0	1	1
I-805	Main Street to Palm Avenue	453	976	2,103	4,531	436	939	2,022	4,357
I-805	Palm Avenue to SR-905	417	899	1,937	4,174	405	872	1,878	4,047
I-805	SR-905 to I-5	250	538	1,158	2,496	272	585	1,260	2,715
I-805	I-5 to Border	280	602	1,298	2,796	291	627	1,352	2,912
SR-11	SR-905 to Enrico Fermi Drive	153	330	711	1,532	146	315	678	1,460
SR-11	Enrico Fermi Drive to Siempre Viva Road	96	207	445	959	95	204	439	946
SR-11	Siempre Viva Road to Border	130	280	604	1,301	130	280	604	1,301
SR-125	Birch Road to Lone Star Road	246	529	1,140	2,456	324	699	1,505	3,243
SR-125	Lone Star Road to SR-905	201	433	934	2,012	266	573	1,234	2,659
SR-905	Picador Boulevard to I-805	309	665	1,433	3,088	286	615	1,325	2,855
SR-905	I-805 to Caliente Avenue	449	968	2,085	4,491	410	883	1,903	4,099
SR-905	Caliente Avenue to Heritage Road	414	891	1,920	4,136	378	815	1,756	3,784
SR-905	Heritage Road to Britannia Boulevard	374	807	1,738	3,745	348	750	1,616	3,482
SR-905	Britannia Boulevard to La Media Road	340	733	1,578	3,401	322	694	1,495	3,222
SR-905	La Media Road to SR-125	274	591	1,273	2,743	247	533	1,147	2,472
SR-905	SR-125 to Siempre Viva Road	246	531	1,144	2,464	240	517	1,114	2,400
SR-905	Siempre Viva Road to Border	180	389	837	1,803	180	389	837	1,803

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As shown in Figures 5 and 6, traffic noise levels at existing and proposed residential use areas in the western portion of the CPU area would exceed the City's compatibility thresholds for residential land uses.

While the City has a compatibility level of 60 CNEL or less for residential uses, noise levels of 61–65 CNEL are generally considered acceptable for residential uses, since interior noise levels can be reduced to 45 CNEL through simple means, such as closing/sealing windows and providing mechanical ventilation. Additionally, passive mitigation such as noise walls can usually reduce exterior noise levels to comply with City standards. The majority of proposed residential land uses would be located within the conditionally compatibility zone.

Noise levels of 66–69 CNEL are more difficult to reduce to compatible levels in single dwelling units and these uses are typically precluded from these areas, however, multiple dwelling units can generally provide the required structural attenuation to reduce noise levels at interior locations. Additionally, due to the provision of common exterior use areas, these projects can generally provide greater shielding to these smaller areas, thus providing exterior use areas that comply with City standards. The greatest concentration of residential uses within this noise level range are south of Airway Road, west and east of Caliente Avenue, north of SR-905, and east of I-805.

Noise levels of 70–74 CNEL are very difficult to reduce to compatible interior noise levels in most residential structures, and noise sensitive land uses are typically precluded from these areas. Additionally, land uses in areas with noise levels this high or greater are not usually capable of providing sufficient shielding for exterior use areas.

Noise levels of 75 CNEL or greater are typically limited to industrial uses or retail commercial uses. Residential uses north and south of SR-905 and west of I-805, in the western portion of the CPU area, would be located within the 75 CNEL contours for I-805 and SR-905.

For properties located in areas where exterior noise levels exceed 60 CNEL, site-specific noise studies would be required. Additionally, site-specific interior noise levels would be required for land uses located in areas where exterior noise levels exceed the City's noise and land use compatibility thresholds as defined in the General Plan, Table N-3.

It should be noted that at any specific location the actual existing noise would depend upon not only the source noise level, but also the nature of the path from the source to the sensitive receptor. Buildings, walls, and other barriers would block the direct line of sight and reduce noise levels at the receptor. As an example, a first row of buildings would reduce traffic noise levels at receptors by 3–5 dBA behind those structures depending on the building to gap ratio. Large continuous structures can provide substantially greater attenuation of traffic noise.

Implementation of the policies in the CPU and General Plan would preclude or reduce traffic noise impacts. In addition, the City's process for the evaluation of discretionary projects includes environmental review and documentation pursuant to California Environmental Quality Act (CEQA) as well as an analysis of those projects for consistency with the goals, policies, and recommendations of the General Plan. Compliance with the standards is required of all projects and is not considered to be mitigation. However, it is possible that for certain projects, adherence to the regulations may not adequately reduce noise levels, and such projects would require additional measures to comply with applicable standards.

Thus, without mitigation, implementation of the CPU would result in a significant impact from traffic noise, because the CPU would potentially allow sensitive receptors to be located in areas where exterior noise levels exceed the compatibility standards established by the General Plan (see Table 2).

5.3 Airport Noise Impacts

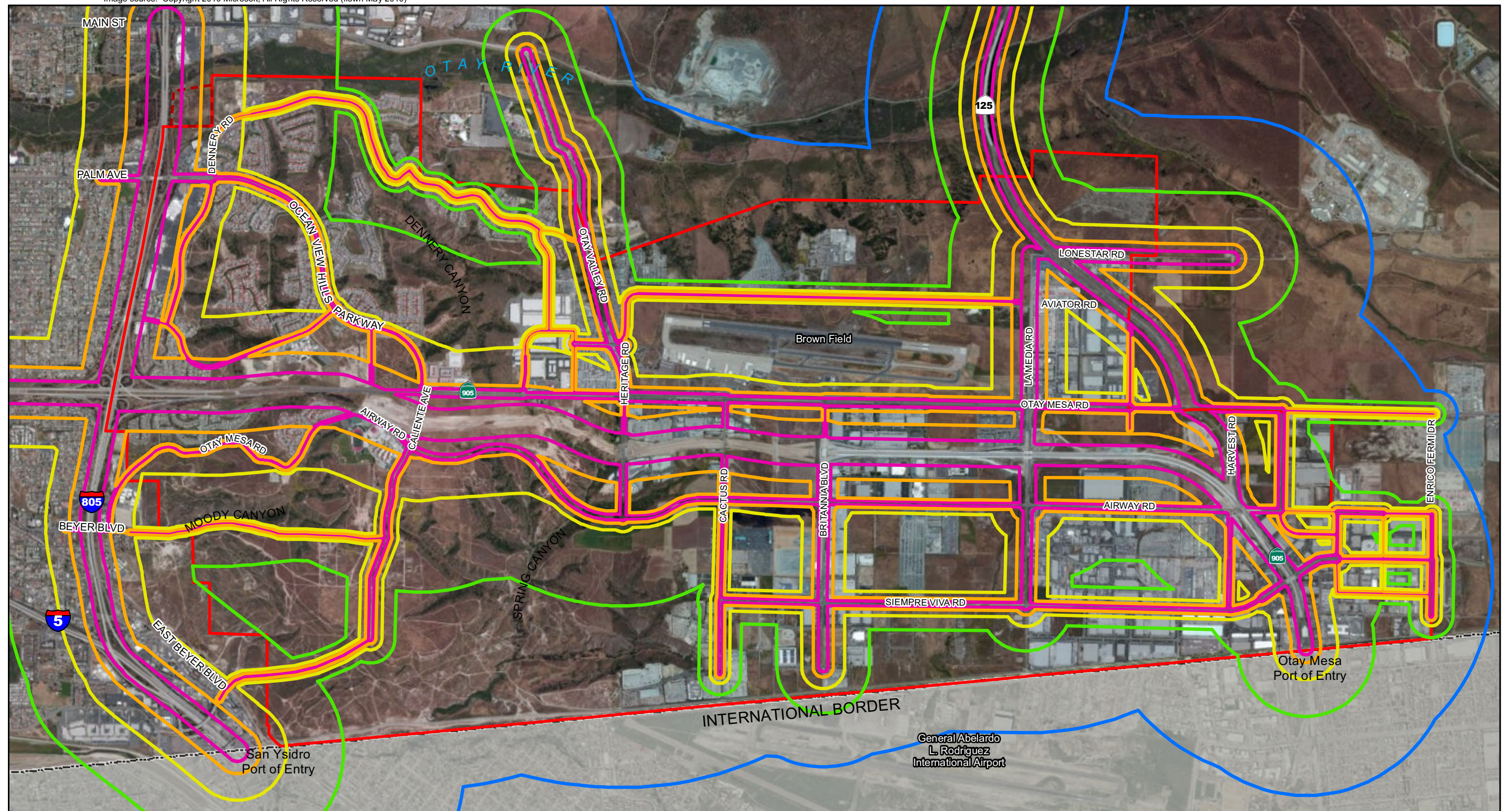
As discussed previously, the primary sources of aircraft noise in the vicinity of the CPU area are aircraft operations associated with Brown Field located in the center of the CPU and General Abelardo L. Rodriguez International Airport in Tijuana, just south of the U.S.–Mexico border. Figure 4 shows the existing noise contours associated with operations at Brown Field and the General Abelardo L. Rodriguez International Airport (San Diego County Regional Airport Authority 2003 and 2010).

Table 3 presents the land uses and the compatible noise levels used for determining whether a proposed land use is consistent with ALUCP policies and guidelines (San Diego County Regional Airport Authority 2010).



As shown in Figure 4, existing residential uses east of Ocean View Hills Parkway are located within the 60 CNEL contour line for Brown Field, and two existing residential areas east of Vista Santo Domingo are located within the 65 CNEL contour. No residential use currently exists within the 70 CNEL or greater contours, and none is proposed under the CPU. No new residential development is proposed within the Brown Field 60 or 65 CNEL contours.

Several commercial and industrial uses are also located within the airport influence area. These uses are compatible with noise levels up to 75 CNEL (see Table 3). However, noise levels at these areas do not exceed 70 CNEL due to operations at Brown Field.

As shown in Figure 4, the 65 CNEL contour line for General Abelardo L. Rodriguez International Airport crosses the southernmost boundary of the CPU area. Existing and proposed industrial uses are located within this 65 CNEL contour line. Typical commercial and industrial uses are conditionally compatible within 70 to 75 CNEL with



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 Otay Mesa Community Plan Boundary
 Not A Part

Future Traffic Noise Contours

 55 CNEL
 60 CNEL
 65 CNEL
 70 CNEL
 75 CNEL


0 Feet 2,500 

FIGURE 5
Future Traffic Noise Contours for the Adopted
Community Plan and Existing Land Uses

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FIGURE 6
Future Traffic Noise Contours for the
CPU and Proposed Land Uses

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an interior noise level of 50 CNEL for associated offices. However, public works yards, outdoor storage, extractive industry, and solid waste facilities are compatible up to 75 dB(A). Typical commercial and industrial construction provides 25–30 dB(A) attenuation from exterior noise sources. Therefore, noise levels of 70 CNEL would be reduced to 40–45 CNEL within structures located within this zone.

Based on the available airport noise contours and the CPU land use plan, the CPU would not expose people residing or working in the CPU area to excessive noise levels due to airport operations.

5.4 Stationary Source/Collocation Noise Impacts

The CPU strives to integrate land uses in accordance with the City of Villages concept. As such, noise-sensitive land uses, such as residential, would be located in proximity to noise generating land uses, such as commercial and industrial land uses.

Stationary sources of noise include activities associated with a given land use. For example, noise sources in commercial uses would include car washes, fast food restaurants, auto repair facilities, parking lots, and a variety of other uses; sources of noise in industrial and manufacturing areas would include heavy machinery, truck loading/unloading, and other industrial activities. Figure 3 shows the areas of residential–industrial land uses. Mixed-use areas would also contain residential and commercial interfaces. As shown, there are areas where noise sensitive residential uses would be located adjacent to noise generating uses. These include the mixed-use villages where there is a residential–commercial interface and residential areas adjacent to commercial and industrial land uses.

Commercial and industrial uses in the CPU area could include manufacturing and warehousing, repair facilities, manufacturing facilities, machine shops, recycling facilities, and auto repair. Typical noise levels from these types of uses are discussed below.

Manufacturing facilities and machine shops have noise sources that include compressors, generators, welders, manual and pneumatic tools, air conditioning and heating units, and other equipment. Maximum noise levels range greatly and could be as loud as 80 dB(A) L_{eq} at 50 feet (RECON 2013a).

Noise sources associated with recycling facilities include trucks, loaders, conveyor systems, sorting equipment, compactors, fans, blowers, and other equipment. Measured maximum noise levels range from 65 to 85 dB(A) L_{eq} at 50 feet, and average hourly noise levels range from 60 to 70 dB(A) L_{eq} at 50 feet.

Noise sources from auto repair facilities include pneumatic impact wrenches, hammering, air compressors, closing vehicle doors and hoods, and revving engines. At 50 feet from an open garage door, the general maximum noise levels can range from 60 to 80 dB(A) L_{eq} .

Other noise sources may include warning horns and truck deliveries. Noise levels due to delivery trucks are approximately 75 to 85 dB(A) L_{eq} at 50 feet, and noise levels due to truck back-up alarms are approximately 65 to 75 dB(A) L_{eq} at 50 feet.

The noise level limit at the boundary between a noise-sensitive land use and a commercial or industrial use is dependent on the type of land use where the noise is being generated, the type of sensitive land use that is receiving the noise, and the time of day that the noise is being generated (see Table 4). For example, to reduce the typical average commercial and industrial noise levels, which range from 60 to 80 dB(A) L_{eq} at 50 feet, to the daytime single-family residential noise level limit of 50 dB(A) L_{eq} , a buffer distance ranging from 50 to 500 feet would be required. Site-specific noise reduction measures such as noise barriers would allow for reduced buffer distances. However, without project-specific details, noise levels generated by these activities associated with future development under the CPU cannot be anticipated at the program level.

Although noise-sensitive residential land uses would be exposed to noise associated with the operation of these commercial and industrial uses, City policies in place are intended to control noise and reduce noise impacts between various land uses. The City's noise policies, as contained in the General Plan and noise ordinance, include policies and regulations that require noise studies for land uses proposed for potentially incompatible locations, limits on hours of operation for various noise-generating activities, and standards for the compatibility of various land uses with the existing and future noise environment. In addition, enforcement of the previously described federal, state, and local noise regulations reduce impacts. Moreover, the CPU includes policies to reduce noise impacts. Such policies include requiring site design considerations and other measures to reduce noise levels from these noise-generating uses where an interface with noise sensitive land uses occurs. The CPU also defines acceptable methods for separating sensitive receptors within the CPU area, in the form of roads, parking, and landscaping to reduce noise levels to sensitive receptors. These criteria would be applied as future development is proposed to implement the CPU.

The juxtaposition of proposed land uses would result in potentially significant noise impacts. While the applicable regulations and policies would reduce direct and indirect impacts associated with the generation of noise levels in excess of standards established in the General Plan or Noise Ordinance, no project-level site plans, or implementation programs have been considered as part of the environmental review of the CPU. However, without detailed operational data it cannot be verified that future projects implemented in accordance with the CPU would be capable of reducing noise

levels to comply with City standards. As the degree of success of regulations cannot be adequately known for each specific project at this program-level of analysis, impacts would be significant. Additional mitigation would be required to provide verification that City standards have been met.

6.0 Mitigation Framework

The following measures would reduce noise impacts resulting from the adoption of the CPU:

6.1 Traffic Noise and Land Use Compatibility

NOI-1. Prior to the issuance of building permits, site-specific exterior noise analyses that demonstrate that the project would not place residential receptors in locations where the exterior existing or future noise levels would exceed the noise compatibility standards of the City's General Plan shall be required as part of the environmental and discretionary review of future development proposals. Effective noise reduction measures may include, but are not limited to, building noise barriers, increased building setbacks, speed reductions on surrounding roadways, alternative pavement surfaces, or other relevant noise attenuation measures. Exact noise mitigation measures and their effectiveness shall be determined by the site-specific exterior noise analyses.

NOI-2. When building plans are available and prior to the issuance of building permits, site-specific interior noise analyses demonstrating compliance with the interior noise compatibility standards of the City's General Plan and other applicable regulations shall be prepared for noise sensitive land uses located in areas where exterior noise levels exceed 60 CNEL or where the exterior noise levels exceed the noise compatibility standards of the City's General Plan. Noise control measures may include, but are not limited to, increasing roof, wall, window, and door sound attenuation ratings, placing HVAC in noise reducing enclosures, or designing buildings so that no windows face freeways or major roadways. Exact noise mitigation measures and their effectiveness shall be determined by the site-specific exterior noise analyses.

Future development proposals implementing the CPU will be required to incorporate feasible mitigation measures and alternatives adopted in conjunction with the certification of this PEIR. However, because the degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be adequately known for each specific future project at this program-level of analysis, the program-level

impact related to exterior and interior noise impacts remains significant and unavoidable, even with adherence to the Mitigation Framework.

Additionally, project traffic noise effects on existing residences would be potentially significant. There are areas within the CPU area where project traffic noise would potentially cause interior noise levels in existing residences to exceed applicable standards. As these older homes may not have been constructed to achieve current interior noise standards, there is the potential that project traffic would generate noise levels that exceed current standards at these existing residences. Possible exterior noise mitigation would include the construction of barriers between heavily traveled roadways and noise sensitive exterior use areas. Possible noise reduction measures would include retrofitting older homes with new window and door components with higher sound transmission class (STC) ratings. However, because the significant noise impacts are to existing homes in an already urbanized area, there is no feasible mitigation. Impacts would remain significant and unavoidable.

6.2 Stationary Sources (Collocation)

NOI-3. Operational noise from various land uses could adversely impact adjacent properties, either individually or cumulatively. Prior to the issuance of a building permit, a site-specific noise analysis of any on-site generated noise sources, including generators, mechanical equipment, and trucks, which will identify all noise-generating equipment, predict noise levels at property lines from all identified equipment, and recommended mitigation to be implemented (e.g., enclosures, barriers, site orientation), as necessary, to comply with the City's Noise Abatement and Control Ordinance. Noise reduction measures shall include building noise-attenuating walls, reducing noise at the source by requiring quieter machinery or limiting the hours of operation, or other attenuation measures. Additionally, future projects shall be required to buffer sensitive receptors from noise sources through the use of open space and other separation techniques as recommended after thorough analysis by a qualified acoustical engineer. Exact noise mitigation measures and their effectiveness shall be determined by the site-specific noise analyses.

Future development proposals implementing the CPU will be required to incorporate feasible mitigation measures and alternatives adopted in conjunction with the certification of this PEIR. However, because the degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be adequately known for each specific future project at this program-level of analysis, the program-level impact related to the generation of noise levels in excess of the standards established in the City's Noise Abatement and Control Ordinance remain significant and unavoidable, even with adherence to the Mitigation Framework.

6.3 Construction

NOI-4. For projects that would exceed daily construction noise thresholds established by the City of San Diego, best construction management practices shall be used to reduce construction noise levels to comply with standards established by the City of San Diego in Article 9.5 Noise Abatement and Control. Future projects shall be required to prepare and implement a Construction Noise Management Plan. Appropriate management practices shall be determined on a project-by-project basis and are specific to a location. Control measures shall include:

- a) Minimizing simultaneous operation of multiple construction equipment units;
- b) Locating stationary equipment as far as reasonable from sensitive receptors;
- c) Requiring all internal combustion-engine-driven equipment to be equipped with mufflers that are in good operating condition and appropriate for the equipment; and
- d) Construction of temporary noise barriers around construction sites that block the line-of-sight to surrounding receptors.

The Land Use Adjacency Guidelines in the Multiple Species Conservation Program (MSCP) Subarea Plan address noise impacts associated with industrial, commercial, mixed-use, or recreation uses that generate stationary noise adjacent to MHPA areas. Potential noise mitigation measures consistent with the City's Biology Guidelines and MSCP Subarea Plan are identified in the biological technical report (RECON 2013b). Future development shall be conditioned to comply with the Land Use Adjacency Guidelines and potential construction-related noise impacts to the coastal California gnatcatcher would be reduced to below a level of significance.

Future development proposals implementing the CPU will be required to incorporate feasible mitigation measures and alternatives adopted in conjunction with the certification of this PEIR. With adherence to the Mitigation Framework, the program-level impact related to construction noise impacts to residential uses and sensitive species would be reduced to below a level of significance.

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ATTACHMENTS

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ATTACHMENT 1

Noise Measurement Data

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June 15, 2011 Measurements

C:\LARDAV\SLMUTIL\15JUN_09.bin		Time History Data		0	0	15Jun 11 10:56:40	66.3	72.3	73.3
Sample Period (sec): 5.000				0	0	15Jun 11 10:56:45	77.3	84.2	84.3
				0	0	15Jun 11 10:56:50	73.4	76.5	80.4
				0	0	15Jun 11 10:56:55	72.8	77.3	79.8
				0	0	15Jun 11 10:57:00	70.9	76.6	77.9
				0	0	15Jun 11 10:57:05	66.4	73.7	73.4
				0	0	15Jun 11 10:57:10	69.0	73.7	76.0
				0	0	15Jun 11 10:57:15	64.0	65.7	71.0
				0	0	15Jun 11 10:57:20	60.8	64.1	67.7
				0	0	15Jun 11 10:57:25	62.5	65.3	69.5
				0	0	15Jun 11 10:57:30	71.0	76.5	78.0
				0	0	15Jun 11 10:57:35	67.2	70.0	74.2
				0	0	15Jun 11 10:57:40	61.0	65.7	68.0
				0	0	15Jun 11 10:57:45	57.3	60.3	64.2
				0	0	15Jun 11 10:57:50	55.5	62.0	62.5
				0	0	15Jun 11 10:57:55	74.1	80.8	81.1
				0	0	15Jun 11 10:58:00	63.5	68.1	70.5
				0	0	15Jun 11 10:58:05	56.2	59.5	63.1
				0	0	15Jun 11 10:58:10	46.8	49.7	53.8
				0	0	15Jun 11 10:58:15	44.8	47.2	51.8
				0	0	15Jun 11 10:58:20	46.1	48.0	53.1
				0	0	15Jun 11 10:58:25	48.6	54.3	55.6
				0	0	15Jun 11 10:58:30	72.1	78.0	79.1
				0	0	15Jun 11 10:58:35	73.8	78.2	80.8
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				0	0	15Jun 11 10:58:45	85.5	93.6	92.5
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				0	0	15Jun 11 10:58:55	65.1	68.7	72.1
				0	0	15Jun 11 10:59:00	72.4	77.0	79.4
				0	0	15Jun 11 10:59:05	72.0	76.6	79.0
				0	0	15Jun 11 10:59:10	64.9	68.1	71.9
				0	0	15Jun 11 10:59:15	64.0	67.6	71.0
				0	0	15Jun 11 10:59:20	63.1	65.7	70.1
				0	0	15Jun 11 10:59:25	66.2	70.3	73.2
				0	0	15Jun 11 10:59:30	73.2	80.2	80.2
				0	0	15Jun 11 10:59:35	67.3	73.1	74.3
				0	0	15Jun 11 10:59:40	60.7	66.6	67.7
				0	0	15Jun 11 10:59:45	50.7	54.3	57.7
				0	0	15Jun 11 10:59:50	49.2	59.3	56.2
				0	0	15Jun 11 10:59:55	62.9	71.9	69.9
				0	0	15Jun 11 11:00:00	73.7	77.1	80.7
				0	0	15Jun 11 11:00:05	65.3	67.3	72.3
				0	0	15Jun 11 11:00:10	54.2	61.6	61.2
				0	0	15Jun 11 11:00:15	69.6	75.3	76.6
				0	0	15Jun 11 11:00:20	61.3	66.5	68.3
				0	0	15Jun 11 11:00:25	71.7	77.2	78.6
				0	0	15Jun 11 11:00:30	63.0	66.6	70.0
				0	0	15Jun 11 11:00:35	55.5	59.6	62.5
				0	0	15Jun 11 11:00:40	54.6	58.8	61.6
				0	0	15Jun 11 11:00:45	65.9	69.3	72.9
				0	0	15Jun 11 11:00:50	66.8	69.2	73.8
				0	0	15Jun 11 11:00:55	72.4	77.3	79.4
				0	0	15Jun 11 11:01:00	77.4	83.5	84.4
				0	0	15Jun 11 11:01:05	72.4	80.7	79.4
				0	0	15Jun 11 11:01:10	71.6	77.7	78.6
				0	0	15Jun 11 11:01:15	61.1	63.0	68.1
				0	0	15Jun 11 11:01:20	59.5	62.6	66.5
				0	0	15Jun 11 11:01:25	49.5	53.2	56.5
				0	0	15Jun 11 11:01:30	48.5	56.3	55.4
				0	0	15Jun 11 11:01:35	50.7	54.5	57.7
				0	0	15Jun 11 11:01:40	69.4	75.1	76.4
				0	0	15Jun 11 11:01:45	68.6	72.3	75.6
				0	0	15Jun 11 11:01:50	74.5	77.7	81.5
				0	0	15Jun 11 11:01:55	74.5	78.8	81.5

0	0	15Jun 11 11:02:00	65.1	67.9	72.1	0	0	15Jun 11 11:31:35	72.0	73.5	79.0	
0	0	15Jun 11 11:02:05	56.1	59.3	63.1	0	0	15Jun 11 11:31:40	73.8	75.0	80.8	
0	0	15Jun 11 11:02:10	71.8	77.3	78.7	0	0	15Jun 11 11:31:45	73.5	74.3	80.5	
0	0	15Jun 11 11:02:15	62.5	65.7	69.5	0	0	15Jun 11 11:31:50	72.7	74.1	79.7	
0	0	15Jun 11 11:02:20	58.8	62.0	65.8	0	0	15Jun 11 11:31:55	71.8	73.0	78.8	
0	0	15Jun 11 11:02:25	58.1	64.2	65.1	0	0	15Jun 11 11:32:00	72.2	73.1	79.2	
0	0	15Jun 11 11:02:30	75.5	84.1	82.5	0	0	15Jun 11 11:32:05	72.1	73.8	79.1	
0	0	15Jun 11 11:02:35	75.3	81.5	82.3	0	0	15Jun 11 11:32:10	71.9	73.1	78.9	
0	0	15Jun 11 11:02:40	70.9	76.2	77.9	0	0	15Jun 11 11:32:15	71.6	73.1	78.6	
0	0	15Jun 11 11:02:45	78.8	82.9	85.8	0	0	15Jun 11 11:32:20	71.5	73.1	78.4	
0	0	15Jun 11 11:02:50	75.7	84.0	82.7	0	0	15Jun 11 11:32:25	71.3	72.7	78.3	
0	0	15Jun 11 11:02:55	71.6	76.5	78.6	0	0	15Jun 11 11:32:30	71.8	73.2	78.8	
0	0	15Jun 11 11:03:00	72.0	77.8	79.0	0	0	15Jun 11 11:32:35	72.5	73.4	79.5	
0	0	15Jun 11 11:03:05	63.6	67.2	70.6	0	0	15Jun 11 11:32:40	71.0	72.1	78.0	
0	0	15Jun 11 11:03:10	53.4	56.2	60.4	0	0	15Jun 11 11:32:45	71.6	73.0	78.6	
0	0	15Jun 11 11:03:15	48.9	50.7	55.9	0	0	15Jun 11 11:32:50	72.7	74.0	79.7	
0	0	15Jun 11 11:03:20	47.5	48.5	54.4	0	0	15Jun 11 11:32:55	73.8	74.8	80.8	
0	0	15Jun 11 11:03:25	55.0	61.1	61.9	0	0	15Jun 11 11:33:00	73.4	75.0	80.4	
0	0	15Jun 11 11:03:30	71.6	75.5	78.6	0	0	15Jun 11 11:33:05	71.8	72.6	78.7	
0	0	15Jun 11 11:03:35	69.1	72.8	76.1	0	0	15Jun 11 11:33:10	71.1	72.5	78.1	
0	0	15Jun 11 11:03:40	78.1	84.6	85.1	0	0	15Jun 11 11:33:15	73.7	75.3	80.7	
0	0	15Jun 11 11:03:45	75.1	80.5	82.1	0	0	15Jun 11 11:33:20	74.8	76.0	81.8	
0	0	15Jun 11 11:03:50	67.7	70.2	74.7	0	0	15Jun 11 11:33:25	73.5	74.7	80.5	
0	0	15Jun 11 11:03:55	71.2	75.2	78.2	0	0	15Jun 11 11:33:30	72.5	73.6	79.5	
0	0	15Jun 11 11:04:00	60.4	63.7	67.4	0	0	15Jun 11 11:33:35	73.0	74.8	80.0	
0	0	15Jun 11 11:04:05	60.1	61.8	67.1	0	0	15Jun 11 11:33:40	73.5	74.8	80.5	
0	0	15Jun 11 11:04:10	61.3	66.1	68.3	0	0	15Jun 11 11:33:45	74.6	75.5	81.6	
0	0	15Jun 11 11:04:15	71.4	77.1	78.4	0	0	15Jun 11 11:33:50	72.9	74.5	79.9	
0	0	15Jun 11 11:04:20	74.1	76.7	81.1	0	0	15Jun 11 11:33:55	71.2	73.3	78.2	
0	0	15Jun 11 11:04:25	64.0	68.5	71.0	0	0	15Jun 11 11:34:00	74.5	77.8	81.5	
0	0	15Jun 11 11:04:30	57.2	60.8	64.2	0	0	15Jun 11 11:34:05	75.3	78.3	82.3	
0	0	15Jun 11 11:04:35	49.4	52.6	56.4	0	0	15Jun 11 11:34:10	73.9	77.2	80.9	
0	0	15Jun 11 11:04:40	47.7	49.3	54.7	0	0	15Jun 11 11:34:15	71.9	73.2	78.9	
0	0	15Jun 11 11:04:45	46.4	47.8	53.4	0	0	15Jun 11 11:34:20	70.9	72.3	77.9	
0	0	15Jun 11 11:04:50	46.8	49.0	53.7	0	0	15Jun 11 11:34:25	70.3	72.0	77.3	
0	0	15Jun 11 11:04:55	48.9	53.0	55.9	0	0	15Jun 11 11:34:30	70.0	71.5	77.0	
0	0	15Jun 11 11:05:00	67.2	73.6	74.2	0	0	15Jun 11 11:34:35	72.0	73.9	79.0	
0	0	15Jun 11 11:05:05	66.9	73.6	73.9	0	0	15Jun 11 11:34:40	73.6	75.3	80.6	
0	0	15Jun 11 11:05:10	59.9	65.5	66.9	0	0	15Jun 11 11:34:45	72.6	74.6	79.6	
0	0	15Jun 11 11:05:15	47.7	49.7	54.7	0	0	15Jun 11 11:34:50	70.8	72.5	77.8	
0	0	15Jun 11 11:05:20	53.9	60.8	60.9	0	0	15Jun 11 11:34:55	71.1	73.2	78.1	
0	0	15Jun 11 11:05:25	76.1	83.2	83.1	0	0	15Jun 11 11:35:00	72.7	74.0	79.6	
0	0	15Jun 11 11:05:30	73.3	78.2	80.3	0	0	15Jun 11 11:35:05	74.3	75.3	81.3	
0	0	15Jun 11 11:05:35	73.7	80.8	80.7	0	0	15Jun 11 11:35:10	72.9	74.2	79.9	
0	0	15Jun 11 11:05:40	66.1	72.5	73.1	0	0	15Jun 11 11:35:15	72.5	73.2	79.5	
0	0	15Jun 11 11:05:45	62.0	65.2	69.0	0	0	15Jun 11 11:35:20	74.1	75.5	81.1	
0	0	15Jun 11 11:05:50	54.7	58.1	61.7	0	0	15Jun 11 11:35:25	72.8	74.6	79.8	
0	0	15Jun 11 11:05:55	63.4	67.6	70.4	0	0	15Jun 11 11:35:30	70.8	72.2	77.7	
0	0	15Jun 11 11:06:00	60.2	65.0	67.2	0	0	15Jun 11 11:35:35	72.2	73.3	79.2	
0	0	15Jun 11 11:06:05	65.1	67.6	72.1	0	0	15Jun 11 11:35:40	72.4	73.6	79.4	
0	0	15Jun 11 11:06:10	65.3	67.2	72.3	0	0	15Jun 11 11:35:45	73.1	74.6	80.1	
0	0	15Jun 11 11:06:15	65.9	68.1	72.9	0	0	15Jun 11 11:35:50	74.1	75.4	81.1	
0	0	15Jun 11 11:06:20	62.4	64.8	69.4	0	0	15Jun 11 11:35:55	75.1	76.1	82.1	
0	0	15Jun 11 11:06:25	58.6	60.7	65.6	0	0	15Jun 11 11:36:00	75.4	76.6	82.4	
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0	0	15Jun 11 11:06:40	61.3	63.7	68.3	0	0	15Jun 11 11:36:15	74.2	75.2	81.2	
0	0	15Jun 11 11:06:45	68.5	73.9	75.5	0	0	15Jun 11 11:36:20	74.1	75.1	81.1	
0	0	15Jun 11 11:06:50	66.1	73.0	73.1	0	0	15Jun 11 11:36:25	73.5	74.6	80.5	
0	0	15Jun 11 11:06:55	65.5	72.0	72.5	0	0	15Jun 11 11:36:30	72.4	73.5	79.4	
0	0	15Jun 11 11:07:00	71.7	71.7	78.7	0	0	15Jun 11 11:36:35	70.2	71.7	77.2	
Stop	Key					0	0	15Jun 11 11:36:40	70.0	71.1	77.0	
Run	Key					0	0	15Jun 11 11:36:45	70.6	71.8	77.6	
0		0	15Jun 11 11:31:00	73.1	74.8	80.1	0	0	15Jun 11 11:36:50	70.8	72.1	77.8
0		0	15Jun 11 11:31:05	73.6	74.3	80.6	0	0	15Jun 11 11:36:55	71.8	72.7	78.8
0		0	15Jun 11 11:31:10	72.8	74.2	79.7	0	0	15Jun 11 11:37:00	72.7	74.0	79.7
0		0	15Jun 11 11:31:15	72.4	73.8	79.4	0	0	15Jun 11 11:37:05	73.3	74.1	80.3
0		0	15Jun 11 11:31:20	70.0	71.3	77.0	0	0	15Jun 11 11:37:10	73.0	74.0	79.9
0		0	15Jun 11 11:31:25	68.6	70.6	75.6	0	0	15Jun 11 11:37:15	71.1	72.3	78.1
0		0	15Jun 11 11:31:30	69.9	72.5	76.9	0	0	15Jun 11 11:37:20	70.8	71.7	77.7

0	0	15Jun 11 11:37:25	70.1	72.7	77.1	0	0	15Jun 11 11:43:15	71.4	72.2	78.4
0	0	15Jun 11 11:37:30	71.9	73.6	78.9	0	0	15Jun 11 11:43:20	72.5	73.8	79.5
0	0	15Jun 11 11:37:35	73.6	74.7	80.6	0	0	15Jun 11 11:43:25	73.6	74.6	80.6
0	0	15Jun 11 11:37:40	72.9	74.7	79.9	0	0	15Jun 11 11:43:30	74.3	75.2	81.3
0	0	15Jun 11 11:37:45	71.0	72.1	78.0	0	0	15Jun 11 11:43:35	73.6	74.8	80.6
0	0	15Jun 11 11:37:50	71.6	73.1	78.6	0	0	15Jun 11 11:43:40	71.4	72.5	78.4
0	0	15Jun 11 11:37:55	73.6	74.7	80.6	0	0	15Jun 11 11:43:45	71.2	72.1	78.2
0	0	15Jun 11 11:38:00	72.8	74.3	79.8	0	0	15Jun 11 11:43:50	71.7	72.7	78.7
0	0	15Jun 11 11:38:05	73.7	74.8	80.7	0	0	15Jun 11 11:43:55	73.4	74.8	80.4
0	0	15Jun 11 11:38:10	73.5	75.0	80.5	0	0	15Jun 11 11:44:00	74.5	75.6	81.5
0	0	15Jun 11 11:38:15	73.6	74.8	80.6	0	0	15Jun 11 11:44:05	72.9	74.8	79.9
0	0	15Jun 11 11:38:20	71.9	73.3	78.9	0	0	15Jun 11 11:44:10	69.2	71.7	76.2
0	0	15Jun 11 11:38:25	72.6	74.0	79.6	0	0	15Jun 11 11:44:15	65.8	67.5	72.8
0	0	15Jun 11 11:38:30	73.2	75.2	80.2	0	0	15Jun 11 11:44:20	64.1	66.2	71.1
0	0	15Jun 11 11:38:35	72.2	74.2	79.2	0	0	15Jun 11 11:44:25	66.9	71.1	73.9
0	0	15Jun 11 11:38:40	72.7	73.5	79.7	0	0	15Jun 11 11:44:30	71.5	74.6	78.5
0	0	15Jun 11 11:38:45	72.1	73.3	79.1	0	0	15Jun 11 11:44:35	69.9	72.3	76.9
0	0	15Jun 11 11:38:50	71.1	72.6	78.1	0	0	15Jun 11 11:44:40	72.3	74.5	79.3
0	0	15Jun 11 11:38:55	71.8	74.0	78.7	0	0	15Jun 11 11:44:45	74.5	75.8	81.5
0	0	15Jun 11 11:39:00	73.9	75.0	80.9	0	0	15Jun 11 11:44:50	74.9	76.1	81.9
0	0	15Jun 11 11:39:05	73.8	74.6	80.8	0	0	15Jun 11 11:44:55	74.4	76.2	81.4
0	0	15Jun 11 11:39:10	73.1	74.2	80.1	0	0	15Jun 11 11:45:00	73.6	74.7	80.6
0	0	15Jun 11 11:39:15	73.0	74.5	80.0	0	0	15Jun 11 11:45:05	71.8	73.5	78.8
0	0	15Jun 11 11:39:20	73.7	75.0	80.7	0	0	15Jun 11 11:45:10	71.3	72.5	78.3
0	0	15Jun 11 11:39:25	73.9	75.2	80.9	0	0	15Jun 11 11:45:15	72.0	73.2	79.0
0	0	15Jun 11 11:39:30	72.5	73.5	79.4	0	0	15Jun 11 11:45:20	71.8	73.2	78.8
0	0	15Jun 11 11:39:35	70.3	73.0	77.3	0	0	15Jun 11 11:45:25	72.3	73.7	79.3
0	0	15Jun 11 11:39:40	70.4	72.2	77.4	0	0	15Jun 11 11:45:30	73.5	75.0	80.5
0	0	15Jun 11 11:39:45	70.9	72.7	77.9	0	0	15Jun 11 11:45:35	73.3	74.5	80.3
0	0	15Jun 11 11:39:50	71.9	73.0	78.9	0	0	15Jun 11 11:45:40	73.6	74.8	80.6
0	0	15Jun 11 11:39:55	72.9	74.5	79.9	0	0	15Jun 11 11:45:45	75.2	76.6	82.1
0	0	15Jun 11 11:40:00	72.6	73.8	79.6	0	0	15Jun 11 11:45:50	75.0	77.0	82.0
0	0	15Jun 11 11:40:05	72.7	73.9	79.7	0	0	15Jun 11 11:45:55	73.3	75.2	80.3
0	0	15Jun 11 11:40:10	73.5	74.6	80.5	0	0	15Jun 11 11:46:00	72.4	72.8	79.4
0	0	15Jun 11 11:40:15	74.5	76.6	81.5	Stop	Key				
0	0	15Jun 11 11:40:20	71.8	73.3	78.8	Run	Key				
0	0	15Jun 11 11:40:25	70.4	72.3	77.4	0	0	15Jun 11 12:34:00	80.7	83.0	87.6
0	0	15Jun 11 11:40:30	71.1	72.6	78.1	0	0	15Jun 11 12:34:05	77.4	83.1	84.4
0	0	15Jun 11 11:40:35	71.9	73.3	78.9	0	0	15Jun 11 12:34:10	81.3	83.9	88.2
0	0	15Jun 11 11:40:40	71.5	73.0	78.5	0	0	15Jun 11 12:34:15	80.1	83.6	87.1
0	0	15Jun 11 11:40:45	70.0	71.7	77.0	0	0	15Jun 11 12:34:20	73.3	75.2	80.2
0	0	15Jun 11 11:40:50	70.9	72.3	77.9	0	0	15Jun 11 12:34:25	66.3	68.9	73.3
0	0	15Jun 11 11:40:55	69.4	71.5	76.4	0	0	15Jun 11 12:34:30	74.0	77.2	80.9
0	0	15Jun 11 11:41:00	69.0	70.2	76.0	0	0	15Jun 11 12:34:35	75.4	77.6	82.4
0	0	15Jun 11 11:41:05	70.2	71.4	77.1	0	0	15Jun 11 12:34:40	67.9	73.4	74.9
0	0	15Jun 11 11:41:10	72.1	73.0	79.1	0	0	15Jun 11 12:34:45	72.5	75.9	79.5
0	0	15Jun 11 11:41:15	72.4	73.2	79.4	0	0	15Jun 11 12:34:50	74.7	77.9	81.7
0	0	15Jun 11 11:41:20	72.5	74.1	79.5	0	0	15Jun 11 12:34:55	68.9	71.1	75.9
0	0	15Jun 11 11:41:25	73.6	75.2	80.6	0	0	15Jun 11 12:35:00	66.4	68.3	73.4
0	0	15Jun 11 11:41:30	74.1	75.0	81.1	0	0	15Jun 11 12:35:05	69.9	72.6	76.9
0	0	15Jun 11 11:41:35	73.9	74.7	80.9	0	0	15Jun 11 12:35:10	65.9	67.7	72.9
0	0	15Jun 11 11:41:40	73.5	74.2	80.5	0	0	15Jun 11 12:35:15	61.3	62.9	68.3
0	0	15Jun 11 11:41:45	72.0	73.3	79.0	0	0	15Jun 11 12:35:20	60.3	61.4	67.3
0	0	15Jun 11 11:41:50	72.3	74.1	79.3	0	0	15Jun 11 12:35:25	63.7	71.5	70.7
0	0	15Jun 11 11:41:55	72.8	73.8	79.8	0	0	15Jun 11 12:35:30	69.1	73.8	76.1
0	0	15Jun 11 11:42:00	72.7	73.8	79.7	0	0	15Jun 11 12:35:35	72.1	77.6	79.1
0	0	15Jun 11 11:42:05	73.0	75.2	80.0	0	0	15Jun 11 12:35:40	62.7	66.6	69.7
0	0	15Jun 11 11:42:10	75.1	76.5	82.1	0	0	15Jun 11 12:35:45	69.8	76.1	76.8
0	0	15Jun 11 11:42:15	73.8	75.6	80.8	0	0	15Jun 11 12:35:50	69.5	75.5	76.4
0	0	15Jun 11 11:42:20	72.5	73.6	79.5	0	0	15Jun 11 12:35:55	56.5	59.6	63.5
0	0	15Jun 11 11:42:25	73.5	74.8	80.5	0	0	15Jun 11 12:36:00	57.7	64.6	64.7
0	0	15Jun 11 11:42:30	74.4	75.5	81.4	0	0	15Jun 11 12:36:05	73.2	75.6	80.2
0	0	15Jun 11 11:42:35	73.6	75.7	80.6	0	0	15Jun 11 12:36:10	72.7	76.5	79.7
0	0	15Jun 11 11:42:40	73.1	75.0	80.1	0	0	15Jun 11 12:36:15	72.0	75.3	79.0
0	0	15Jun 11 11:42:45	74.0	74.7	81.0	0	0	15Jun 11 12:36:20	71.0	74.5	77.9
0	0	15Jun 11 11:42:50	73.6	75.0	80.6	0	0	15Jun 11 12:36:25	73.8	76.4	80.8
0	0	15Jun 11 11:42:55	72.5	74.2	79.5	0	0	15Jun 11 12:36:30	77.6	82.2	84.6
0	0	15Jun 11 11:43:00	71.8	73.2	78.8	0	0	15Jun 11 12:36:35	82.8	86.5	89.8
0	0	15Jun 11 11:43:05	71.8	72.6	78.7	0	0	15Jun 11 12:36:40	86.4	94.0	93.4
0	0	15Jun 11 11:43:10	70.8	72.2	77.8	0	0	15Jun 11 12:36:45	81.3	84.3	88.2

0	0	15Jun 11 12:36:50	79.5	81.9	86.5	0	0	15Jun 11 12:42:40	81.0	83.6	88.0
0	0	15Jun 11 12:36:55	77.9	79.5	84.9	0	0	15Jun 11 12:42:45	79.6	81.8	86.6
0	0	15Jun 11 12:37:00	82.0	85.0	89.0	0	0	15Jun 11 12:42:50	81.8	84.2	88.8
0	0	15Jun 11 12:37:05	78.9	80.9	85.9	0	0	15Jun 11 12:42:55	78.4	83.2	85.4
0	0	15Jun 11 12:37:10	78.6	80.3	85.6	0	0	15Jun 11 12:43:00	78.7	80.4	85.7
0	0	15Jun 11 12:37:15	78.1	80.2	85.1	0	0	15Jun 11 12:43:05	78.2	81.7	85.2
0	0	15Jun 11 12:37:20	79.2	82.9	86.2	0	0	15Jun 11 12:43:10	81.5	84.7	88.5
0	0	15Jun 11 12:37:25	73.8	76.2	80.8	0	0	15Jun 11 12:43:15	85.7	87.5	92.7
0	0	15Jun 11 12:37:30	75.7	78.4	82.7	0	0	15Jun 11 12:43:20	78.1	85.9	85.1
0	0	15Jun 11 12:37:35	75.5	78.4	82.5	0	0	15Jun 11 12:43:25	74.4	78.6	81.4
0	0	15Jun 11 12:37:40	76.7	80.5	83.7	0	0	15Jun 11 12:43:30	74.5	77.3	81.5
0	0	15Jun 11 12:37:45	72.4	78.0	79.4	0	0	15Jun 11 12:43:35	73.9	78.0	80.9
0	0	15Jun 11 12:37:50	72.5	74.9	79.5	0	0	15Jun 11 12:43:40	76.8	80.0	83.8
0	0	15Jun 11 12:37:55	73.2	78.5	80.2	0	0	15Jun 11 12:43:45	81.1	86.0	88.1
0	0	15Jun 11 12:38:00	72.2	77.5	79.2	0	0	15Jun 11 12:43:50	79.5	83.4	86.5
0	0	15Jun 11 12:38:05	65.7	67.4	72.6	0	0	15Jun 11 12:43:55	70.0	72.1	77.0
0	0	15Jun 11 12:38:10	60.0	63.1	66.9	0	0	15Jun 11 12:44:00	64.2	68.8	71.2
0	0	15Jun 11 12:38:15	56.1	57.4	63.1	0	0	15Jun 11 12:44:05	62.5	65.0	69.5
0	0	15Jun 11 12:38:20	53.3	53.9	60.3	0	0	15Jun 11 12:44:10	62.3	67.0	69.3
0	0	15Jun 11 12:38:25	53.5	54.2	60.4	0	0	15Jun 11 12:44:15	74.4	79.3	81.4
0	0	15Jun 11 12:38:30	53.8	55.2	60.8	0	0	15Jun 11 12:44:20	63.1	65.5	70.1
0	0	15Jun 11 12:38:35	55.2	57.5	62.2	0	0	15Jun 11 12:44:25	62.4	65.1	69.4
0	0	15Jun 11 12:38:40	58.9	61.9	65.9	0	0	15Jun 11 12:44:30	64.7	65.6	71.7
0	0	15Jun 11 12:38:45	63.5	67.3	70.5	0	0	15Jun 11 12:44:35	72.3	78.9	79.2
0	0	15Jun 11 12:38:50	77.5	80.2	84.5	0	0	15Jun 11 12:44:40	78.9	81.1	85.9
0	0	15Jun 11 12:38:55	82.4	86.4	89.4	0	0	15Jun 11 12:44:45	77.2	80.9	84.1
0	0	15Jun 11 12:39:00	75.6	78.1	82.6	0	0	15Jun 11 12:44:50	76.2	80.5	83.2
0	0	15Jun 11 12:39:05	78.9	82.9	85.9	0	0	15Jun 11 12:44:55	80.7	82.4	87.6
0	0	15Jun 11 12:39:10	78.7	80.8	85.7	0	0	15Jun 11 12:45:00	79.0	82.8	86.0
0	0	15Jun 11 12:39:15	79.1	83.3	86.1	0	0	15Jun 11 12:45:05	83.0	87.3	90.0
0	0	15Jun 11 12:39:20	76.4	83.9	83.4	0	0	15Jun 11 12:45:10	78.7	82.3	85.6
0	0	15Jun 11 12:39:25	81.9	85.8	88.9	0	0	15Jun 11 12:45:15	75.9	78.4	82.9
0	0	15Jun 11 12:39:30	83.1	86.4	90.1	0	0	15Jun 11 12:45:20	78.8	83.5	85.8
0	0	15Jun 11 12:39:35	80.7	82.6	87.7	0	0	15Jun 11 12:45:25	70.4	74.3	77.4
0	0	15Jun 11 12:39:40	81.1	83.6	88.1	0	0	15Jun 11 12:45:30	76.4	80.5	83.4
0	0	15Jun 11 12:39:45	82.0	84.3	89.0	0	0	15Jun 11 12:45:35	77.5	82.2	84.5
0	0	15Jun 11 12:39:50	80.0	83.8	87.0	0	0	15Jun 11 12:45:40	76.9	81.5	83.9
0	0	15Jun 11 12:39:55	83.7	86.3	90.7	0	0	15Jun 11 12:45:45	84.2	91.5	91.1
0	0	15Jun 11 12:40:00	80.0	82.9	87.0	0	0	15Jun 11 12:45:50	83.1	89.0	90.1
0	0	15Jun 11 12:40:05	78.8	80.7	85.8	0	0	15Jun 11 12:45:55	80.7	82.0	87.7
0	0	15Jun 11 12:40:10	78.0	81.0	85.0	0	0	15Jun 11 12:46:00	77.9	80.3	84.9
0	0	15Jun 11 12:40:15	80.3	82.1	87.2	0	0	15Jun 11 12:46:05	83.5	89.8	90.5
0	0	15Jun 11 12:40:20	77.1	79.3	84.1	0	0	15Jun 11 12:46:10	83.4	85.5	90.4
0	0	15Jun 11 12:40:25	70.6	72.6	77.6	0	0	15Jun 11 12:46:15	81.1	85.0	88.1
0	0	15Jun 11 12:40:30	78.4	88.0	85.4	0	0	15Jun 11 12:46:20	78.0	80.5	85.0
0	0	15Jun 11 12:40:35	76.9	79.7	83.9	0	0	15Jun 11 12:46:25	70.5	73.7	77.5
0	0	15Jun 11 12:40:40	69.5	71.8	76.5	0	0	15Jun 11 12:46:30	66.6	68.8	73.6
0	0	15Jun 11 12:40:45	67.1	73.1	74.1	0	0	15Jun 11 12:46:35	67.3	71.2	74.3
0	0	15Jun 11 12:40:50	70.8	74.4	77.8	0	0	15Jun 11 12:46:40	78.3	81.4	85.3
0	0	15Jun 11 12:40:55	61.5	65.2	68.5	0	0	15Jun 11 12:46:45	73.0	76.9	79.9
0	0	15Jun 11 12:41:00	70.2	77.5	77.2	0	0	15Jun 11 12:46:50	74.2	77.7	81.2
0	0	15Jun 11 12:41:05	69.8	76.2	76.7	0	0	15Jun 11 12:46:55	68.9	72.7	75.9
0	0	15Jun 11 12:41:10	59.1	60.7	66.1	0	0	15Jun 11 12:47:00	67.1	70.4	74.1
0	0	15Jun 11 12:41:15	61.0	63.1	68.0	0	0	15Jun 11 12:47:05	64.0	69.0	71.0
0	0	15Jun 11 12:41:20	58.0	60.0	64.9	0	0	15Jun 11 12:47:10	63.7	67.0	70.7
0	0	15Jun 11 12:41:25	59.5	62.0	66.5	0	0	15Jun 11 12:47:15	71.9	75.4	78.9
0	0	15Jun 11 12:41:30	62.3	63.9	69.3	0	0	15Jun 11 12:47:20	76.9	83.2	83.9
0	0	15Jun 11 12:41:35	62.7	64.1	69.7	0	0	15Jun 11 12:47:25	69.4	75.5	76.4
0	0	15Jun 11 12:41:40	59.8	61.6	66.8	0	0	15Jun 11 12:47:30	59.0	64.2	66.0
0	0	15Jun 11 12:41:45	57.0	59.2	64.0	0	0	15Jun 11 12:47:35	56.5	57.3	63.5
0	0	15Jun 11 12:41:50	66.8	71.1	73.8	0	0	15Jun 11 12:47:40	56.5	57.7	63.4
0	0	15Jun 11 12:41:55	58.8	64.5	65.8	0	0	15Jun 11 12:47:45	69.5	74.2	76.5
0	0	15Jun 11 12:42:00	57.3	58.2	64.3	0	0	15Jun 11 12:47:50	64.2	71.7	71.2
0	0	15Jun 11 12:42:05	61.7	68.6	68.6	0	0	15Jun 11 12:47:55	57.4	58.7	64.4
0	0	15Jun 11 12:42:10	70.1	74.7	77.1	0	0	15Jun 11 12:48:00	56.1	57.3	63.1
0	0	15Jun 11 12:42:15	72.0	77.9	78.9	0	0	15Jun 11 12:48:05	55.6	56.9	62.6
0	0	15Jun 11 12:42:20	76.3	78.5	83.3	0	0	15Jun 11 12:48:10	55.8	58.0	62.7
0	0	15Jun 11 12:42:25	81.5	84.6	88.5	0	0	15Jun 11 12:48:15	58.5	61.0	65.5
0	0	15Jun 11 12:42:30	82.1	84.4	89.1	0	0	15Jun 11 12:48:20	58.5	61.5	65.5
0	0	15Jun 11 12:42:35	78.8	81.2	85.8	0	0	15Jun 11 12:48:25	68.9	74.5	75.9

0	0	15Jun 11 12:48:30	74.8	79.3	81.8	0	0	15Jun 11 13:45:05	75.1	82.9	82.1
0	0	15Jun 11 12:48:35	78.3	82.9	85.3	0	0	15Jun 11 13:45:10	81.8	86.7	88.8
0	0	15Jun 11 12:48:40	82.5	86.3	89.4	0	0	15Jun 11 13:45:15	75.4	80.7	82.4
0	0	15Jun 11 12:48:45	81.2	85.9	88.2	0	0	15Jun 11 13:45:20	73.2	79.3	80.2
0	0	15Jun 11 12:48:50	79.3	81.0	86.3	0	0	15Jun 11 13:45:25	65.7	68.8	72.7
0	0	15Jun 11 12:48:55	79.8	81.9	86.8	0	0	15Jun 11 13:45:30	60.5	63.8	67.5
0	0	15Jun 11 12:49:00	80.8	81.5	87.8	0	0	15Jun 11 13:45:35	60.9	63.8	67.9
Stop	Key					0	0	15Jun 11 13:45:40	72.3	77.8	79.3
Run	Key					0	0	15Jun 11 13:45:45	62.0	65.9	69.0
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0	0	15Jun 11 13:40:05	60.6	62.6	67.6	0	0	15Jun 11 13:45:55	71.3	81.5	78.3
0	0	15Jun 11 13:40:10	79.1	84.6	86.1	0	0	15Jun 11 13:46:00	60.4	61.9	67.4
0	0	15Jun 11 13:40:15	70.3	77.5	77.2	0	0	15Jun 11 13:46:05	59.7	61.7	66.7
0	0	15Jun 11 13:40:20	72.1	77.2	79.1	0	0	15Jun 11 13:46:10	58.7	61.9	65.6
0	0	15Jun 11 13:40:25	74.1	78.2	81.1	0	0	15Jun 11 13:46:15	59.8	62.0	66.8
0	0	15Jun 11 13:40:30	73.0	76.2	80.0	0	0	15Jun 11 13:46:20	75.5	80.3	82.5
0	0	15Jun 11 13:40:35	69.1	75.2	76.1	0	0	15Jun 11 13:46:25	67.2	72.5	74.2
0	0	15Jun 11 13:40:40	66.6	70.3	73.6	0	0	15Jun 11 13:46:30	71.9	77.5	78.9
0	0	15Jun 11 13:40:45	78.3	84.5	85.3	0	0	15Jun 11 13:46:35	64.9	69.0	71.9
0	0	15Jun 11 13:40:50	78.6	88.1	85.6	0	0	15Jun 11 13:46:40	67.9	72.4	74.9
0	0	15Jun 11 13:40:55	67.5	69.3	74.5	0	0	15Jun 11 13:46:45	76.1	83.3	83.1
0	0	15Jun 11 13:41:00	75.9	80.1	82.9	0	0	15Jun 11 13:46:50	78.9	84.5	85.9
0	0	15Jun 11 13:41:05	70.7	75.0	77.7	0	0	15Jun 11 13:46:55	65.1	67.9	72.1
0	0	15Jun 11 13:41:10	81.9	85.5	88.9	0	0	15Jun 11 13:47:00	59.3	61.9	66.3
0	0	15Jun 11 13:41:15	75.4	83.3	82.4	0	0	15Jun 11 13:47:05	57.0	57.9	64.0
0	0	15Jun 11 13:41:20	68.9	71.7	75.9	0	0	15Jun 11 13:47:10	57.3	60.0	64.3
0	0	15Jun 11 13:41:25	78.5	85.3	85.5	0	0	15Jun 11 13:47:15	57.3	58.0	64.3
0	0	15Jun 11 13:41:30	88.0	91.3	95.0	0	0	15Jun 11 13:47:20	60.3	65.4	67.2
0	0	15Jun 11 13:41:35	80.6	88.0	87.6	0	0	15Jun 11 13:47:25	79.5	85.9	86.5
0	0	15Jun 11 13:41:40	78.9	84.2	85.9	0	0	15Jun 11 13:47:30	71.4	80.2	78.4
0	0	15Jun 11 13:41:45	70.2	79.1	77.2	0	0	15Jun 11 13:47:35	61.6	64.1	68.6
0	0	15Jun 11 13:41:50	60.7	62.8	67.7	0	0	15Jun 11 13:47:40	59.0	60.0	66.0
0	0	15Jun 11 13:41:55	59.9	61.6	66.9	0	0	15Jun 11 13:47:45	70.0	75.8	77.0
0	0	15Jun 11 13:42:00	66.4	71.1	73.4	0	0	15Jun 11 13:47:50	67.6	71.9	74.6
0	0	15Jun 11 13:42:05	65.7	69.0	72.7	0	0	15Jun 11 13:47:55	77.2	81.2	84.2
0	0	15Jun 11 13:42:10	65.4	68.2	72.4	0	0	15Jun 11 13:48:00	68.8	75.5	75.8
0	0	15Jun 11 13:42:15	59.4	63.8	66.4	0	0	15Jun 11 13:48:05	68.5	74.8	75.4
0	0	15Jun 11 13:42:20	58.5	59.7	65.5	0	0	15Jun 11 13:48:10	77.1	82.4	84.1
0	0	15Jun 11 13:42:25	59.8	63.1	66.7	0	0	15Jun 11 13:48:15	80.8	86.0	87.8
0	0	15Jun 11 13:42:30	65.2	72.2	72.1	0	0	15Jun 11 13:48:20	81.0	85.7	88.0
0	0	15Jun 11 13:42:35	72.4	79.8	79.4	0	0	15Jun 11 13:48:25	73.0	76.7	80.0
0	0	15Jun 11 13:42:40	79.1	84.7	86.1	0	0	15Jun 11 13:48:30	72.6	76.3	79.6
0	0	15Jun 11 13:42:45	69.8	72.2	76.7	0	0	15Jun 11 13:48:35	74.6	76.7	81.6
0	0	15Jun 11 13:42:50	71.5	78.1	78.4	0	0	15Jun 11 13:48:40	81.5	85.2	88.5
0	0	15Jun 11 13:42:55	61.4	65.3	68.4	0	0	15Jun 11 13:48:45	79.5	82.8	86.4
0	0	15Jun 11 13:43:00	61.2	66.3	68.2	0	0	15Jun 11 13:48:50	77.1	80.8	84.1
0	0	15Jun 11 13:43:05	69.9	73.8	76.9	0	0	15Jun 11 13:48:55	71.5	76.5	78.4
0	0	15Jun 11 13:43:10	74.3	78.7	81.3	0	0	15Jun 11 13:49:00	69.9	75.4	76.9
0	0	15Jun 11 13:43:15	81.2	86.1	88.2	0	0	15Jun 11 13:49:05	74.8	79.2	81.7
0	0	15Jun 11 13:43:20	71.1	74.9	78.1	0	0	15Jun 11 13:49:10	69.8	72.4	76.8
0	0	15Jun 11 13:43:25	64.3	65.7	71.3	0	0	15Jun 11 13:49:15	61.4	67.3	68.4
0	0	15Jun 11 13:43:30	61.7	64.1	68.6	0	0	15Jun 11 13:49:20	58.1	60.5	65.1
0	0	15Jun 11 13:43:35	72.8	78.1	79.8	0	0	15Jun 11 13:49:25	59.0	60.1	66.0
0	0	15Jun 11 13:43:40	70.8	73.4	77.8	0	0	15Jun 11 13:49:30	69.5	74.8	76.5
0	0	15Jun 11 13:43:45	74.1	79.9	81.1	0	0	15Jun 11 13:49:35	68.9	76.9	75.9
0	0	15Jun 11 13:43:50	79.0	82.8	86.0	0	0	15Jun 11 13:49:40	70.9	74.3	77.9
0	0	15Jun 11 13:43:55	71.8	75.4	78.8	0	0	15Jun 11 13:49:45	72.3	75.4	79.3
0	0	15Jun 11 13:44:00	73.8	76.9	80.7	0	0	15Jun 11 13:49:50	78.2	82.0	85.2
0	0	15Jun 11 13:44:05	77.6	85.3	84.6	0	0	15Jun 11 13:49:55	77.5	79.9	84.4
0	0	15Jun 11 13:44:10	79.1	89.4	86.1	0	0	15Jun 11 13:50:00	75.9	79.0	82.9
0	0	15Jun 11 13:44:15	68.4	72.1	75.4	0	0	15Jun 11 13:50:05	73.8	78.8	80.8
0	0	15Jun 11 13:44:20	68.8	74.1	75.7	0	0	15Jun 11 13:50:10	73.8	80.0	80.8
0	0	15Jun 11 13:44:25	63.9	71.7	70.9	0	0	15Jun 11 13:50:15	80.0	85.6	87.0
0	0	15Jun 11 13:44:30	67.9	72.7	74.9	0	0	15Jun 11 13:50:20	84.5	90.3	91.5
0	0	15Jun 11 13:44:35	70.3	76.4	77.3	0	0	15Jun 11 13:50:25	87.8	91.9	94.8
0	0	15Jun 11 13:44:40	64.3	66.7	71.3	0	0	15Jun 11 13:50:30	69.7	73.4	76.7
0	0	15Jun 11 13:44:45	69.2	72.3	76.1	0	0	15Jun 11 13:50:35	66.9	69.5	73.9
0	0	15Jun 11 13:44:50	79.0	82.6	86.0	0	0	15Jun 11 13:50:40	65.1	68.4	72.1
0	0	15Jun 11 13:44:55	66.8	75.6	73.8	0	0	15Jun 11 13:50:45	65.0	67.9	71.9
0	0	15Jun 11 13:45:00	62.4	65.8	69.4	0	0	15Jun 11 13:50:50	81.4	86.5	88.4

0	0	15Jun 11 13:50:55	72.7	80.1	79.7	0	0	15Jun 11 14:13:31	67.0	69.9	73.9
0	0	15Jun 11 13:51:00	72.0	77.9	79.0	0	0	15Jun 11 14:13:36	60.9	63.8	67.9
0	0	15Jun 11 13:51:05	66.8	68.5	73.8	0	0	15Jun 11 14:13:41	59.0	64.3	66.0
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0	0	15Jun 11 13:51:20	69.5	76.9	76.4	0	0	15Jun 11 14:13:56	53.8	56.2	60.7
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0	0	15Jun 11 13:51:30	57.6	59.9	64.6	0	0	15Jun 11 14:14:06	56.4	59.8	63.4
0	0	15Jun 11 13:51:35	55.8	56.8	62.8	0	0	15Jun 11 14:14:11	62.7	64.5	69.7
0	0	15Jun 11 13:51:40	56.6	57.5	63.6	0	0	15Jun 11 14:14:16	64.8	68.7	71.8
0	0	15Jun 11 13:51:45	56.8	58.3	63.8	0	0	15Jun 11 14:14:21	70.8	75.4	77.8
0	0	15Jun 11 13:51:50	65.3	76.8	72.2	0	0	15Jun 11 14:14:26	74.4	86.8	81.4
0	0	15Jun 11 13:51:55	79.1	87.6	86.1	0	0	15Jun 11 14:14:31	70.9	84.0	77.9
0	0	15Jun 11 13:52:00	65.7	68.8	72.7	0	0	15Jun 11 14:14:36	66.6	68.7	73.6
0	0	15Jun 11 13:52:05	60.7	66.0	67.7	0	0	15Jun 11 14:14:41	62.4	65.7	69.4
0	0	15Jun 11 13:52:10	63.0	69.9	70.0	0	0	15Jun 11 14:14:46	75.9	84.0	82.9
0	0	15Jun 11 13:52:15	76.8	84.0	83.8	0	0	15Jun 11 14:14:51	68.3	74.3	75.2
0	0	15Jun 11 13:52:20	79.1	85.5	86.1	0	0	15Jun 11 14:14:56	63.2	65.5	70.2
0	0	15Jun 11 13:52:25	65.9	70.3	72.9	0	0	15Jun 11 14:15:01	61.2	64.9	68.1
0	0	15Jun 11 13:52:30	69.3	74.8	76.2	0	0	15Jun 11 14:15:06	55.3	56.3	62.3
0	0	15Jun 11 13:52:35	57.6	58.6	64.6	0	0	15Jun 11 14:15:11	55.1	56.9	62.1
0	0	15Jun 11 13:52:40	56.2	57.9	63.2	0	0	15Jun 11 14:15:16	65.6	73.6	72.6
0	0	15Jun 11 13:52:45	56.8	57.9	63.8	0	0	15Jun 11 14:15:21	73.3	82.6	80.2
0	0	15Jun 11 13:52:50	57.4	58.1	64.4	0	0	15Jun 11 14:15:26	56.2	58.4	63.1
0	0	15Jun 11 13:52:55	59.1	61.6	66.1	0	0	15Jun 11 14:15:31	60.8	64.8	67.8
0	0	15Jun 11 13:53:00	66.8	73.0	73.8	0	0	15Jun 11 14:15:36	62.2	64.6	69.2
0	0	15Jun 11 13:53:05	71.0	75.0	78.0	0	0	15Jun 11 14:15:41	59.8	66.1	66.8
0	0	15Jun 11 13:53:10	67.0	76.0	74.0	0	0	15Jun 11 14:15:46	83.6	94.1	90.6
0	0	15Jun 11 13:53:15	57.8	58.9	64.8	0	0	15Jun 11 14:15:51	61.4	66.1	68.4
0	0	15Jun 11 13:53:20	56.4	57.1	63.4	0	0	15Jun 11 14:15:56	55.0	59.3	62.0
0	0	15Jun 11 13:53:25	56.3	58.8	63.2	0	0	15Jun 11 14:16:01	50.9	53.7	57.9
0	0	15Jun 11 13:53:30	72.6	79.9	79.6	0	0	15Jun 11 14:16:06	51.4	55.3	58.4
0	0	15Jun 11 13:53:35	68.7	76.0	75.7	0	0	15Jun 11 14:16:11	57.8	61.9	64.8
0	0	15Jun 11 13:53:40	62.1	65.0	69.1	0	0	15Jun 11 14:16:16	63.0	64.9	70.0
0	0	15Jun 11 13:53:45	64.7	67.9	71.7	0	0	15Jun 11 14:16:21	60.0	62.8	67.0
0	0	15Jun 11 13:53:50	57.4	58.1	64.4	0	0	15Jun 11 14:16:26	52.9	54.7	59.9
0	0	15Jun 11 13:53:55	57.4	58.3	64.4	0	0	15Jun 11 14:16:31	52.3	55.4	59.3
0	0	15Jun 11 13:54:00	57.2	58.6	64.2	0	0	15Jun 11 14:16:36	60.4	63.6	67.4
0	0	15Jun 11 13:54:05	57.0	59.0	63.9	0	0	15Jun 11 14:16:41	61.6	64.6	68.6
0	0	15Jun 11 13:54:10	57.0	58.3	64.0	0	0	15Jun 11 14:16:46	52.7	54.7	59.7
0	0	15Jun 11 13:54:15	56.6	57.7	63.6	0	0	15Jun 11 14:16:51	55.1	57.9	62.1
0	0	15Jun 11 13:54:20	56.1	56.9	63.1	0	0	15Jun 11 14:16:56	70.3	76.0	77.3
0	0	15Jun 11 13:54:25	56.3	57.4	63.3	0	0	15Jun 11 14:17:01	68.8	74.8	75.8
0	0	15Jun 11 13:54:30	66.0	70.3	73.0	0	0	15Jun 11 14:17:06	65.2	70.8	72.2
0	0	15Jun 11 13:54:35	68.6	72.5	75.6	0	0	15Jun 11 14:17:11	72.8	76.7	79.8
0	0	15Jun 11 13:54:40	77.5	88.5	84.5	0	0	15Jun 11 14:17:16	73.1	75.2	80.1
0	0	15Jun 11 13:54:45	75.2	78.5	82.1	0	0	15Jun 11 14:17:21	63.6	69.4	70.6
0	0	15Jun 11 13:54:50	65.1	70.1	72.1	0	0	15Jun 11 14:17:26	57.3	59.1	64.3
0	0	15Jun 11 13:54:55	58.9	63.4	65.9	0	0	15Jun 11 14:17:31	58.8	64.9	65.8
0	0	15Jun 11 13:55:00	58.6	58.6	65.6	0	0	15Jun 11 14:17:36	57.8	59.9	64.8
0	0					0	0	15Jun 11 14:17:41	62.7	64.8	69.7
0	0					0	0	15Jun 11 14:17:46	61.7	64.3	68.7
0	0	15Jun 11 14:12:01	53.9	55.8	60.9	0	0	15Jun 11 14:17:51	75.8	85.5	82.8
0	0	15Jun 11 14:12:06	52.1	54.5	59.1	0	0	15Jun 11 14:17:56	82.4	94.3	89.4
0	0	15Jun 11 14:12:11	50.5	51.8	57.5	0	0	15Jun 11 14:18:01	81.2	94.1	88.1
0	0	15Jun 11 14:12:16	51.9	53.0	58.9	0	0	15Jun 11 14:18:06	67.3	70.8	74.3
0	0	15Jun 11 14:12:21	54.6	57.7	61.6	0	0	15Jun 11 14:18:11	72.0	79.1	79.0
0	0	15Jun 11 14:12:26	68.1	72.9	75.1	0	0	15Jun 11 14:18:16	69.2	71.2	76.2
0	0	15Jun 11 14:12:31	71.1	74.3	78.1	0	0	15Jun 11 14:18:21	73.4	81.9	80.4
0	0	15Jun 11 14:12:36	72.3	79.4	79.3	0	0	15Jun 11 14:18:26	73.0	74.4	80.0
0	0	15Jun 11 14:12:41	76.8	82.2	83.8	0	0	15Jun 11 14:18:31	70.5	72.9	77.5
0	0	15Jun 11 14:12:46	66.1	67.7	73.1	0	0	15Jun 11 14:18:36	70.1	73.2	77.1
0	0	15Jun 11 14:12:51	65.6	68.4	72.6	0	0	15Jun 11 14:18:41	62.4	68.1	69.4
0	0	15Jun 11 14:12:56	83.0	94.5	90.0	0	0	15Jun 11 14:18:46	61.5	68.1	68.5
0	0	15Jun 11 14:13:01	84.5	95.1	91.4	0	0	15Jun 11 14:18:51	56.7	59.9	63.7
0	0	15Jun 11 14:13:06	87.6	95.5	94.6	0	0	15Jun 11 14:18:56	56.8	58.3	63.8
0	0	15Jun 11 14:13:11	69.5	72.8	76.5	0	0	15Jun 11 14:19:01	58.3	60.8	65.2
0	0	15Jun 11 14:13:16	75.2	84.7	82.2	0	0	15Jun 11 14:19:06	58.8	62.9	65.8
0	0	15Jun 11 14:13:21	79.6	90.0	86.6	0	0	15Jun 11 14:19:11	54.3	56.1	61.3
0	0	15Jun 11 14:13:26	75.1	84.5	82.1	0	0	15Jun 11 14:19:16	53.1	56.1	60.1

0	0	15Jun 11 14:19:21	55.5	58.2	62.5	0	0	15Jun 11 14:23:31	58.3	61.5	65.3
0	0	15Jun 11 14:19:26	65.8	71.4	72.8	0	0	15Jun 11 14:23:36	56.3	60.0	63.3
0	0	15Jun 11 14:19:31	72.5	75.6	79.5	0	0	15Jun 11 14:23:41	67.6	71.6	74.6
0	0	15Jun 11 14:19:36	69.5	72.7	76.5	0	0	15Jun 11 14:23:46	68.5	71.5	75.5
0	0	15Jun 11 14:19:41	66.9	71.5	73.9	0	0	15Jun 11 14:23:51	62.7	69.2	69.7
0	0	15Jun 11 14:19:46	60.0	64.2	67.0	0	0	15Jun 11 14:23:56	60.7	64.1	67.7
0	0	15Jun 11 14:19:51	71.9	76.0	78.9	0	0	15Jun 11 14:24:01	55.3	60.3	62.3
0	0	15Jun 11 14:19:56	62.4	67.3	69.4	0	0	15Jun 11 14:24:06	71.4	80.6	78.4
0	0	15Jun 11 14:20:01	65.3	71.5	72.3	0	0	15Jun 11 14:24:11	64.7	74.4	71.6
0	0	15Jun 11 14:20:06	67.3	71.0	74.3	0	0	15Jun 11 14:24:16	76.2	82.1	83.2
0	0	15Jun 11 14:20:11	65.9	68.8	72.9	0	0	15Jun 11 14:24:21	62.5	68.6	69.5
0	0	15Jun 11 14:20:16	66.2	69.9	73.2	0	0	15Jun 11 14:24:26	53.8	56.4	60.8
0	0	15Jun 11 14:20:21	54.6	57.2	61.6	0	0	15Jun 11 14:24:31	53.0	54.6	60.0
0	0	15Jun 11 14:20:26	54.0	55.3	61.0	0	0	15Jun 11 14:24:36	58.8	60.4	65.8
0	0	15Jun 11 14:20:31	60.0	69.0	67.0	0	0	15Jun 11 14:24:41	56.2	60.1	63.2
0	0	15Jun 11 14:20:36	72.4	79.8	79.4	0	0	15Jun 11 14:24:46	52.2	54.8	59.1
0	0	15Jun 11 14:20:41	57.3	59.3	64.3	0	0	15Jun 11 14:24:51	56.0	59.9	63.0
0	0	15Jun 11 14:20:46	60.8	63.8	67.8	0	0	15Jun 11 14:24:56	77.5	85.9	84.5
0	0	15Jun 11 14:20:51	60.2	63.6	67.2	0	0	15Jun 11 14:25:01	73.3	85.1	80.3
0	0	15Jun 11 14:20:56	54.6	59.0	61.6	0	0	15Jun 11 14:25:06	57.2	59.3	64.1
0	0	15Jun 11 14:21:01	53.3	55.3	60.3	0	0	15Jun 11 14:25:11	57.1	59.8	64.1
0	0	15Jun 11 14:21:06	55.7	69.0	62.7	0	0	15Jun 11 14:25:16	59.6	62.8	66.6
0	0	15Jun 11 14:21:11	52.6	55.2	59.6	0	0	15Jun 11 14:25:21	64.0	68.1	71.0
0	0	15Jun 11 14:21:16	55.3	59.6	62.3	0	0	15Jun 11 14:25:26	69.7	72.8	76.7
0	0	15Jun 11 14:21:21	59.5	65.6	66.5	0	0	15Jun 11 14:25:31	65.6	72.8	72.6
0	0	15Jun 11 14:21:26	53.0	55.5	60.0	0	0	15Jun 11 14:25:36	79.4	84.2	86.4
0	0	15Jun 11 14:21:31	52.5	54.8	59.4	0	0	15Jun 11 14:25:41	63.2	67.9	70.2
0	0	15Jun 11 14:21:36	52.3	54.2	59.2	0	0	15Jun 11 14:25:46	57.9	59.6	64.9
0	0	15Jun 11 14:21:41	53.9	59.6	60.9	0	0	15Jun 11 14:25:51	66.9	71.6	73.9
0	0	15Jun 11 14:21:46	55.2	57.7	62.2	0	0	15Jun 11 14:25:56	60.5	66.6	67.5
0	0	15Jun 11 14:21:51	66.0	71.6	73.0	0	0	15Jun 11 14:26:01	57.0	58.9	64.0
0	0	15Jun 11 14:21:56	81.2	88.2	88.2	0	0	15Jun 11 14:26:06	53.6	57.7	60.6
0	0	15Jun 11 14:22:01	63.9	70.7	70.9	0	0	15Jun 11 14:26:11	52.1	53.2	59.1
0	0	15Jun 11 14:22:06	73.6	83.6	80.6	0	0	15Jun 11 14:26:16	55.9	59.2	62.9
0	0	15Jun 11 14:22:11	62.0	63.7	69.0	0	0	15Jun 11 14:26:21	67.3	71.9	74.3
0	0	15Jun 11 14:22:16	62.8	64.8	69.8	0	0	15Jun 11 14:26:26	76.0	81.3	83.0
0	0	15Jun 11 14:22:21	68.1	71.6	75.1	0	0	15Jun 11 14:26:31	64.3	68.2	71.3
0	0	15Jun 11 14:22:26	71.4	73.6	78.4	0	0	15Jun 11 14:26:36	60.6	63.9	67.6
0	0	15Jun 11 14:22:31	67.9	69.4	74.9	0	0	15Jun 11 14:26:41	59.7	65.1	66.7
0	0	15Jun 11 14:22:36	59.3	63.0	66.2	0	0	15Jun 11 14:26:46	59.0	62.3	66.0
0	0	15Jun 11 14:22:41	54.7	56.9	61.7	0	0	15Jun 11 14:26:51	63.2	67.0	70.2
0	0	15Jun 11 14:22:46	70.4	76.3	77.4	0	0	15Jun 11 14:26:56	66.7	69.3	73.7
0	0	15Jun 11 14:22:51	65.4	71.6	72.4	C:\LARDAV\SLMUTIL\15JUN_09.bin Time History Data					
0	0	15Jun 11 14:22:56	65.0	70.1	72.0	Sample Period (sec): 5.000					
0	0	15Jun 11 14:23:01	61.3	64.3	68.3						
0	0	15Jun 11 14:23:06	63.6	65.3	70.6						
0	0	15Jun 11 14:23:11	58.3	60.3	65.3	Meas					
0	0	15Jun 11 14:23:16	72.4	76.8	79.4	Site Location	Number	Date	Time	Level	Lmax
0	0	15Jun 11 14:23:21	71.1	73.8	78.1	SEL					
0	0	15Jun 11 14:23:26	71.7	75.5	78.6	-----					
0	0					Stop Key					

October 18, 2012 Measurements

C:\NOISE\LARDAV\SLMUTIL\18OCT12.bin						0	0	18Oct 12 11:01:40	65.7	72.1	72.7
Time History						0	0	18Oct 12 11:01:45	71.4	74.9	78.4
Data						0	0	18Oct 12 11:01:50	57.9	62.2	64.9
Sample Period (sec): 5.000						0	0	18Oct 12 11:01:55	55.7	57.0	62.7
						0	0	18Oct 12 11:02:00	59.9	61.4	66.9
Meas						0	0	18Oct 12 11:02:05	65.6	68.1	72.5
Site Location						0	0	18Oct 12 11:02:10	60.4	65.4	67.4
SEL						0	0	18Oct 12 11:02:15	59.0	61.4	66.0
-----						0	0	18Oct 12 11:02:20	66.4	71.2	73.4
Run Key						0	0	18Oct 12 11:02:25	73.4	75.7	80.4
0	0	18Oct 12 10:57:00	49.8	51.8	56.8	0	0	18Oct 12 11:02:30	72.2	75.0	79.2
0	0	18Oct 12 10:57:05	47.7	48.9	54.7	0	0	18Oct 12 11:02:35	67.3	72.1	74.3
0	0	18Oct 12 10:57:10	50.0	51.8	57.0	0	0	18Oct 12 11:02:40	56.1	58.5	63.1
0	0	18Oct 12 10:57:15	54.3	57.2	61.3	0	0	18Oct 12 11:02:45	56.8	58.2	63.8
0	0	18Oct 12 10:57:20	66.7	71.9	73.7	0	0	18Oct 12 11:02:50	58.3	58.9	65.3
0	0	18Oct 12 10:57:25	73.3	74.5	80.3	0	0	18Oct 12 11:02:55	58.0	58.7	65.0
0	0	18Oct 12 10:57:30	76.7	78.9	83.6	0	0	18Oct 12 11:03:00	58.2	59.6	65.2
0	0	18Oct 12 10:57:35	69.2	72.9	76.2	0	0	18Oct 12 11:03:05	65.2	69.6	72.2
0	0	18Oct 12 10:57:40	57.2	60.1	64.2	0	0	18Oct 12 11:03:10	73.6	75.2	80.6
0	0	18Oct 12 10:57:45	59.4	62.9	66.4	0	0	18Oct 12 11:03:15	73.8	75.2	80.8
0	0	18Oct 12 10:57:50	71.9	73.9	78.9	0	0	18Oct 12 11:03:20	71.7	74.9	78.7
0	0	18Oct 12 10:57:55	73.6	74.6	80.6	0	0	18Oct 12 11:03:25	70.2	74.4	77.2
0	0	18Oct 12 10:58:00	72.0	73.0	79.0	0	0	18Oct 12 11:03:30	58.5	61.7	65.5
0	0	18Oct 12 10:58:05	72.1	73.5	79.1	0	0	18Oct 12 11:03:35	65.0	68.9	72.0
0	0	18Oct 12 10:58:10	62.7	67.6	69.7	0	0	18Oct 12 11:03:40	64.3	68.5	71.2
0	0	18Oct 12 10:58:15	54.6	56.7	61.6	0	0	18Oct 12 11:03:45	59.0	59.9	66.0
0	0	18Oct 12 10:58:20	60.6	68.0	67.6	0	0	18Oct 12 11:03:50	60.0	60.5	67.0
0	0	18Oct 12 10:58:25	71.6	74.5	78.6	0	0	18Oct 12 11:03:55	59.6	60.5	66.6
0	0	18Oct 12 10:58:30	69.5	73.6	76.5	0	0	18Oct 12 11:04:00	55.8	57.4	62.8
0	0	18Oct 12 10:58:35	68.7	72.5	75.7	0	0	18Oct 12 11:04:05	54.7	55.4	61.7
0	0	18Oct 12 10:58:40	73.4	76.6	80.4	0	0	18Oct 12 11:04:10	58.1	60.0	65.1
0	0	18Oct 12 10:58:45	62.1	65.2	69.1	0	0	18Oct 12 11:04:15	60.6	62.1	67.5
0	0	18Oct 12 10:58:50	58.4	61.6	65.4	0	0	18Oct 12 11:04:20	60.2	62.1	67.1
0	0	18Oct 12 10:58:55	63.6	65.9	70.5	0	0	18Oct 12 11:04:25	56.9	58.0	63.9
0	0	18Oct 12 10:59:00	71.8	75.1	78.7	0	0	18Oct 12 11:04:30	58.4	60.0	65.3
0	0	18Oct 12 10:59:05	73.6	75.5	80.6	0	0	18Oct 12 11:04:35	66.3	72.1	73.3
0	0	18Oct 12 10:59:10	73.3	75.5	80.3	0	0	18Oct 12 11:04:40	73.1	74.8	80.1
0	0	18Oct 12 10:59:15	70.6	71.5	77.6	0	0	18Oct 12 11:04:45	70.2	74.1	77.2
0	0	18Oct 12 10:59:20	64.4	69.1	71.4	0	0	18Oct 12 11:04:50	63.3	67.1	70.3
0	0	18Oct 12 10:59:25	60.0	62.4	67.0	0	0	18Oct 12 11:04:55	60.7	63.5	67.7
0	0	18Oct 12 10:59:30	61.1	62.4	68.1	0	0	18Oct 12 11:05:00	72.4	77.6	79.4
0	0	18Oct 12 10:59:35	60.6	65.2	67.6	0	0	18Oct 12 11:05:05	73.8	77.6	80.8
0	0	18Oct 12 10:59:40	69.1	71.1	76.1	0	0	18Oct 12 11:05:10	61.3	65.1	68.3
0	0	18Oct 12 10:59:45	72.2	73.1	79.2	0	0	18Oct 12 11:05:15	65.9	68.6	72.9
0	0	18Oct 12 10:59:50	67.2	71.6	74.1	0	0	18Oct 12 11:05:20	64.8	68.4	71.8
0	0	18Oct 12 10:59:55	68.5	74.0	75.5	0	0	18Oct 12 11:05:25	57.7	59.4	64.6
0	0	18Oct 12 11:00:00	74.6	76.7	81.6	0	0	18Oct 12 11:05:30	56.7	58.4	63.7
0	0	18Oct 12 11:00:05	73.0	76.7	80.0	0	0	18Oct 12 11:05:35	67.4	72.1	74.4
0	0	18Oct 12 11:00:10	75.3	77.1	82.3	0	0	18Oct 12 11:05:40	73.7	76.0	80.7
0	0	18Oct 12 11:00:15	66.5	70.9	73.5	0	0	18Oct 12 11:05:45	65.4	69.6	72.4
0	0	18Oct 12 11:00:20	57.7	60.2	64.6	0	0	18Oct 12 11:05:50	64.6	70.2	71.5
0	0	18Oct 12 11:00:25	56.6	57.1	63.6	0	0	18Oct 12 11:05:55	69.8	72.0	76.8
0	0	18Oct 12 11:00:30	55.7	58.0	62.7	0	0	18Oct 12 11:06:00	73.6	75.5	80.5
0	0	18Oct 12 11:00:35	68.3	73.2	75.3	0	0	18Oct 12 11:06:05	69.2	72.5	76.2
0	0	18Oct 12 11:00:40	67.8	72.9	74.7	0	0	18Oct 12 11:06:10	64.9	67.5	71.9
0	0	18Oct 12 11:00:45	69.8	73.2	76.8	0	0	18Oct 12 11:06:15	59.8	65.5	66.8
0	0	18Oct 12 11:00:50	64.7	70.1	71.7	0	0	18Oct 12 11:06:20	71.6	74.0	78.6
0	0	18Oct 12 11:00:55	58.1	59.1	65.1	0	0	18Oct 12 11:06:25	73.9	75.9	80.9
0	0	18Oct 12 11:01:00	61.4	62.5	68.4	0	0	18Oct 12 11:06:30	62.9	67.9	69.9
0	0	18Oct 12 11:01:05	63.4	63.9	70.4	0	0	18Oct 12 11:06:35	58.0	59.1	65.0
0	0	18Oct 12 11:01:10	64.1	66.5	71.1	0	0	18Oct 12 11:06:40	60.0	62.7	67.0
0	0	18Oct 12 11:01:15	73.8	76.2	80.8	0	0	18Oct 12 11:06:45	64.1	65.1	71.0
0	0	18Oct 12 11:01:20	72.9	75.0	79.9	0	0	18Oct 12 11:06:50	63.4	65.1	70.4
0	0	18Oct 12 11:01:25	71.2	74.2	78.2	0	0	18Oct 12 11:06:55	59.2	61.0	66.2
0	0	18Oct 12 11:01:30	70.4	73.4	77.4	0	0	18Oct 12 11:07:00	57.8	58.4	64.7
0	0	18Oct 12 11:01:35	67.9	69.7	74.9	0	0	18Oct 12 11:07:05	60.8	66.2	67.8

0	0	18Oct 12 11:07:10	71.2	73.7	78.2	0	0	18Oct 12 11:43:30	54.4	59.4	61.4
0	0	18Oct 12 11:07:15	61.0	65.6	68.0	0	0	18Oct 12 11:43:35	59.1	61.3	66.1
0	0	18Oct 12 11:07:20	56.2	56.6	63.2	0	0	18Oct 12 11:43:40	61.5	63.0	68.5
0	0	18Oct 12 11:07:25	61.0	64.4	68.0	0	0	18Oct 12 11:43:45	51.9	56.6	58.8
0	0	18Oct 12 11:07:30	70.8	72.8	77.8	0	0	18Oct 12 11:43:50	44.1	48.3	51.1
0	0	18Oct 12 11:07:35	63.9	68.5	70.9	0	0	18Oct 12 11:43:55	38.7	40.0	45.7
0	0	18Oct 12 11:07:40	61.8	67.8	68.8	0	0	18Oct 12 11:44:00	43.9	51.9	50.9
0	0	18Oct 12 11:07:45	71.7	74.8	78.7	0	0	18Oct 12 11:44:05	65.4	68.6	72.4
0	0	18Oct 12 11:07:50	59.6	64.2	66.6	0	0	18Oct 12 11:44:10	66.0	68.6	73.0
0	0	18Oct 12 11:07:55	55.8	58.5	62.8	0	0	18Oct 12 11:44:15	58.2	63.5	65.1
0	0	18Oct 12 11:08:00	63.7	68.7	70.7	0	0	18Oct 12 11:44:20	59.8	63.9	66.7
0	0	18Oct 12 11:08:05	75.7	78.6	82.7	0	0	18Oct 12 11:44:25	57.0	62.4	64.0
0	0	18Oct 12 11:08:10	67.3	72.5	74.3	0	0	18Oct 12 11:44:30	55.2	56.8	62.2
0	0	18Oct 12 11:08:15	63.1	66.9	70.1	0	0	18Oct 12 11:44:35	50.9	54.9	57.9
0	0	18Oct 12 11:08:20	72.0	73.5	79.0	0	0	18Oct 12 11:44:40	56.1	57.7	63.1
0	0	18Oct 12 11:08:25	71.2	72.9	78.2	0	0	18Oct 12 11:44:45	59.2	61.0	66.2
0	0	18Oct 12 11:08:30	64.9	67.5	71.9	0	0	18Oct 12 11:44:50	55.2	59.9	62.2
0	0	18Oct 12 11:08:35	61.2	64.9	68.2	0	0	18Oct 12 11:44:55	45.9	47.8	52.9
0	0	18Oct 12 11:08:40	70.2	72.9	77.2	0	0	18Oct 12 11:45:00	43.0	44.0	50.0
0	0	18Oct 12 11:08:45	65.6	68.5	72.6	0	0	18Oct 12 11:45:05	43.8	45.0	50.8
0	0	18Oct 12 11:08:50	69.4	71.9	76.4	0	0	18Oct 12 11:45:10	53.6	61.5	60.6
0	0	18Oct 12 11:08:55	74.0	76.0	81.0	0	0	18Oct 12 11:45:15	62.1	64.2	69.0
0	0	18Oct 12 11:09:00	70.4	75.5	77.4	0	0	18Oct 12 11:45:20	50.6	55.4	57.6
0	0	18Oct 12 11:09:05	59.6	63.4	66.6	0	0	18Oct 12 11:45:25	43.8	44.7	50.7
0	0	18Oct 12 11:09:10	54.7	55.9	61.7	0	0	18Oct 12 11:45:30	41.4	42.9	48.4
0	0	18Oct 12 11:09:15	56.2	59.6	63.2	0	0	18Oct 12 11:45:35	46.1	52.7	53.1
0	0	18Oct 12 11:09:20	72.5	76.7	79.5	0	0	18Oct 12 11:45:40	61.5	64.3	68.5
0	0	18Oct 12 11:09:25	68.6	74.5	75.6	0	0	18Oct 12 11:45:45	52.9	58.7	59.9
0	0	18Oct 12 11:09:30	55.8	59.1	62.8	0	0	18Oct 12 11:45:50	42.2	44.5	49.2
0	0	18Oct 12 11:09:35	60.1	64.9	67.1	0	0	18Oct 12 11:45:55	37.7	38.9	44.6
0	0	18Oct 12 11:09:40	72.8	75.2	79.7	0	0	18Oct 12 11:46:00	38.3	38.7	45.3
0	0	18Oct 12 11:09:45	75.3	77.3	82.3	0	0	18Oct 12 11:46:05	38.1	40.3	45.1
0	0	18Oct 12 11:09:50	65.5	71.4	72.5	0	0	18Oct 12 11:46:10	50.7	57.9	57.7
0	0	18Oct 12 11:09:55	56.0	59.5	63.0	0	0	18Oct 12 11:46:15	59.6	61.2	66.6
0	0	18Oct 12 11:10:00	70.6	73.9	77.6	0	0	18Oct 12 11:46:20	50.1	54.8	57.1
0	0	18Oct 12 11:10:05	65.7	71.4	72.7	0	0	18Oct 12 11:46:25	55.1	60.3	62.1
0	0	18Oct 12 11:10:10	58.3	59.9	65.3	0	0	18Oct 12 11:46:30	62.7	65.0	69.7
0	0	18Oct 12 11:10:15	57.1	58.0	64.1	0	0	18Oct 12 11:46:35	59.3	60.4	66.3
0	0	18Oct 12 11:10:20	64.4	71.4	71.4	0	0	18Oct 12 11:46:40	53.5	58.8	60.5
0	0	18Oct 12 11:10:25	72.3	74.9	79.2	0	0	18Oct 12 11:46:45	43.6	47.2	50.6
0	0	18Oct 12 11:10:30	73.9	77.0	80.9	0	0	18Oct 12 11:46:50	54.4	59.5	61.4
0	0	18Oct 12 11:10:35	61.5	66.9	68.5	0	0	18Oct 12 11:46:55	57.5	59.7	64.5
0	0	18Oct 12 11:10:40	58.5	63.9	65.5	0	0	18Oct 12 11:47:00	53.7	55.4	60.6
0	0	18Oct 12 11:10:45	71.9	74.5	78.9	0	0	18Oct 12 11:47:05	51.3	54.9	58.3
0	0	18Oct 12 11:10:50	69.5	74.5	76.5	0	0	18Oct 12 11:47:10	50.7	60.2	57.7
0	0	18Oct 12 11:10:55	71.5	74.5	78.5	0	0	18Oct 12 11:47:15	63.5	65.9	70.5
0	0	18Oct 12 11:11:00	68.1	70.4	75.1	0	0	18Oct 12 11:47:20	48.8	55.2	55.8
0	0	18Oct 12 11:11:05	71.2	73.8	78.2	0	0	18Oct 12 11:47:25	39.1	40.5	46.1
0	0	18Oct 12 11:11:10	63.4	69.4	70.4	0	0	18Oct 12 11:47:30	49.0	56.2	56.0
0	0	18Oct 12 11:11:15	54.2	56.0	61.2	0	0	18Oct 12 11:47:35	55.7	57.7	62.7
0	0	18Oct 12 11:11:20	59.3	60.1	66.3	0	0	18Oct 12 11:47:40	43.4	48.8	50.4
0	0	18Oct 12 11:11:25	58.5	60.1	65.5	0	0	18Oct 12 11:47:45	38.6	39.4	45.6
0	0	18Oct 12 11:11:30	53.1	54.7	60.1	0	0	18Oct 12 11:47:50	40.4	42.9	47.4
0	0	18Oct 12 11:11:35	54.8	55.5	61.8	0	0	18Oct 12 11:47:55	46.4	48.0	53.4
0	0	18Oct 12 11:11:40	57.4	60.6	64.4	0	0	18Oct 12 11:48:00	50.2	53.7	57.1
0	0	18Oct 12 11:11:45	69.9	75.4	76.9	0	0	18Oct 12 11:48:05	57.8	59.3	64.8
0	0	18Oct 12 11:11:50	71.4	75.5	78.4	0	0	18Oct 12 11:48:10	54.0	57.7	61.0
0	0	18Oct 12 11:11:55	60.3	62.5	67.3	0	0	18Oct 12 11:48:15	50.2	51.7	57.2
0	0	18Oct 12 11:12:00	60.7	62.2	67.7	0	0	18Oct 12 11:48:20	45.2	46.4	52.1
0	0	18Oct 12 11:12:05	67.8	69.8	74.8	0	0	18Oct 12 11:48:25	42.2	45.5	49.2
0	0	18Oct 12 11:12:10	63.8	67.7	70.8	0	0	18Oct 12 11:48:30	40.2	42.3	47.2
0	0	18Oct 12 11:12:15	69.8	71.5	76.8	0	0	18Oct 12 11:48:35	51.2	55.4	58.1
Stop	Key					0	0	18Oct 12 11:48:40	56.9	58.0	63.9
Run	Key					0	0	18Oct 12 11:48:45	51.2	53.7	58.1
0		18Oct 12 11:43:00	41.5	45.7	48.5	0	0	18Oct 12 11:48:50	61.4	65.9	68.4
0		18Oct 12 11:43:05	39.7	41.1	46.7	0	0	18Oct 12 11:48:55	64.1	66.2	71.0
0		18Oct 12 11:43:10	39.7	42.6	46.6	0	0	18Oct 12 11:49:00	57.6	59.8	64.5
0		18Oct 12 11:43:15	46.6	48.3	53.6	0	0	18Oct 12 11:49:05	59.1	60.2	66.1
0		18Oct 12 11:43:20	44.6	46.6	51.6	0	0	18Oct 12 11:49:10	54.7	58.2	61.7
0		18Oct 12 11:43:25	44.7	47.8	51.7	0	0	18Oct 12 11:49:15	60.1	62.3	67.1

0	0	18Oct 12 11:49:20	48.3	54.7	55.3	0	0	18Oct 12 11:55:10	47.6	52.3	54.6	
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0	0	18Oct 12 11:49:30	38.9	39.8	45.9	0	0	18Oct 12 11:55:20	42.8	43.8	49.8	
0	0	18Oct 12 11:49:35	36.3	36.9	43.2	0	0	18Oct 12 11:55:25	52.7	56.5	59.6	
0	0	18Oct 12 11:49:40	38.8	40.9	45.8	0	0	18Oct 12 11:55:30	54.9	57.3	61.8	
0	0	18Oct 12 11:49:45	42.1	43.0	49.1	0	0	18Oct 12 11:55:35	48.5	49.4	55.5	
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0	0	18Oct 12 11:50:05	43.5	45.0	50.5	0	0	18Oct 12 11:55:55	46.4	47.8	53.3	
0	0	18Oct 12 11:50:10	43.1	44.4	50.1	0	0	18Oct 12 11:56:00	43.2	46.5	50.2	
0	0	18Oct 12 11:50:15	40.3	42.5	47.3	0	0	18Oct 12 11:56:05	40.8	43.3	47.8	
0	0	18Oct 12 11:50:20	37.8	38.8	44.8	0	0	18Oct 12 11:56:10	46.9	48.5	53.9	
0	0	18Oct 12 11:50:25	41.8	43.8	48.8	0	0	18Oct 12 11:56:15	45.0	47.3	52.0	
0	0	18Oct 12 11:50:30	44.2	47.4	51.2	0	0	18Oct 12 11:56:20	52.5	54.5	59.5	
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0	0	18Oct 12 11:50:40	48.1	49.3	55.1	0	0	18Oct 12 11:56:30	44.8	46.3	51.8	
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0	0	18Oct 12 11:50:55	61.5	64.5	68.5	0	0	18Oct 12 11:56:45	46.1	50.4	53.1	
0	0	18Oct 12 11:51:00	60.9	62.4	67.9	0	0	18Oct 12 11:56:50	40.4	42.0	47.4	
0	0	18Oct 12 11:51:05	59.7	61.5	66.7	0	0	18Oct 12 11:56:55	39.7	40.4	46.7	
0	0	18Oct 12 11:51:10	56.0	57.3	63.0	0	0	18Oct 12 11:57:00	40.0	40.3	47.0	
0	0	18Oct 12 11:51:15	54.8	56.8	61.7	0	0	18Oct 12 11:57:05	40.4	41.9	47.4	
0	0	18Oct 12 11:51:20	62.4	65.3	69.3	0	0	18Oct 12 11:57:10	46.5	47.5	53.5	
0	0	18Oct 12 11:51:25	60.7	65.2	67.7	0	0	18Oct 12 11:57:15	47.0	48.0	54.0	
0	0	18Oct 12 11:51:30	52.6	53.9	59.6	0	0	18Oct 12 11:57:20	49.2	52.8	56.2	
0	0	18Oct 12 11:51:35	48.2	50.8	55.2	0	0	18Oct 12 11:57:25	53.6	55.3	60.5	
0	0	18Oct 12 11:51:40	43.2	44.5	50.2	0	0	18Oct 12 11:57:30	60.4	62.5	67.4	
0	0	18Oct 12 11:51:45	38.9	40.0	45.9	0	0	18Oct 12 11:57:35	56.6	59.2	63.6	
0	0	18Oct 12 11:51:50	40.3	42.2	47.3	0	0	18Oct 12 11:57:40	52.1	52.5	59.0	
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0	0	18Oct 12 11:52:00	47.4	51.8	54.4	0	0	18Oct 12 11:57:50	50.2	53.7	57.2	
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0	0	18Oct 12 11:52:30	55.7	56.8	62.7	0	0	18Oct 12 11:58:20	45.9	47.0	52.9	
0	0	18Oct 12 11:52:35	49.2	53.2	56.2	0	0	18Oct 12 11:58:25	44.4	45.5	51.4	
0	0	18Oct 12 11:52:40	41.4	44.0	48.4	0	0	18Oct 12 11:58:30	44.2	44.7	51.2	
0	0	18Oct 12 11:52:45	44.9	48.4	51.9	0	0	18Oct 12 11:58:35	46.2	47.4	53.2	
0	0	18Oct 12 11:52:50	59.8	63.3	66.8	0	0	18Oct 12 11:58:40	46.6	47.2	53.6	
0	0	18Oct 12 11:52:55	57.2	62.4	64.1	0	0	18Oct 12 11:58:45	46.5	47.2	53.5	
0	0	18Oct 12 11:53:00	46.3	50.8	53.3	0	0	18Oct 12 11:58:50	48.9	49.5	55.9	
0	0	18Oct 12 11:53:05	40.9	42.0	47.9	0	0	18Oct 12 11:58:55	50.0	51.3	57.0	
0	0	18Oct 12 11:53:10	47.7	54.4	54.7	0	0	18Oct 12 11:59:00	58.3	63.7	65.3	
0	0	18Oct 12 11:53:15	56.9	58.0	63.9	0	0	18Oct 12 11:59:05	65.3	66.5	72.3	
0	0	18Oct 12 11:53:20	50.9	55.4	57.8	0	0	18Oct 12 11:59:10	63.8	65.3	70.8	
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0	0	18Oct 12 11:53:45	42.9	47.9	49.9	0	0	18Oct 12 11:59:35	44.8	45.2	51.8	
0	0	18Oct 12 11:53:50	39.4	40.2	46.4	0	0	18Oct 12 11:59:40	46.4	48.9	53.4	
0	0	18Oct 12 11:53:55	38.1	39.5	45.1	0	0	18Oct 12 11:59:45	49.0	51.2	56.0	
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0	0	18Oct 12 11:54:05	41.8	45.0	48.8	0	0	18Oct 12 11:59:55	50.2	53.2	57.2	
0	0	18Oct 12 11:54:10	54.9	62.2	61.9	0	0	18Oct 12 12:00:00	46.9	46.9	53.9	
0	0	18Oct 12 11:54:15	59.4	63.3	66.4	Stop	Key					
0	0	18Oct 12 11:54:20	46.7	50.2	53.7	Run	Key					
0	0	18Oct 12 11:54:25	41.6	43.0	48.6	0		0	18Oct 12 12:52:00	63.2	63.8	70.2
0	0	18Oct 12 11:54:30	42.1	43.4	49.1	0		0	18Oct 12 12:52:05	65.3	66.4	72.2
0	0	18Oct 12 11:54:35	50.7	58.2	57.7	0		0	18Oct 12 12:52:10	65.0	65.4	72.0
0	0	18Oct 12 11:54:40	57.5	59.8	64.5	0		0	18Oct 12 12:52:15	67.2	68.3	74.2
0	0	18Oct 12 11:54:45	45.5	50.2	52.5	0		0	18Oct 12 12:52:20	66.4	68.4	73.4
0	0	18Oct 12 11:54:50	44.0	45.8	51.0	0		0	18Oct 12 12:52:25	67.7	69.2	74.6
0	0	18Oct 12 11:54:55	45.2	46.4	52.2	0		0	18Oct 12 12:52:30	65.0	68.7	72.0
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0	0	18Oct 12 11:55:05	57.9	59.5	64.9	0		0	18Oct 12 12:52:40	64.7	66.7	71.7

0	0	18Oct 12 12:52:45	62.3	62.9	69.3	0	0	18Oct 12 12:58:35	66.2	67.4	73.1
0	0	18Oct 12 12:52:50	62.7	63.4	69.7	0	0	18Oct 12 12:58:40	65.3	67.4	72.3
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0	0	18Oct 12 12:53:05	64.7	67.7	71.7	0	0	18Oct 12 12:58:55	64.2	68.0	71.2
0	0	18Oct 12 12:53:10	66.1	67.9	73.1	0	0	18Oct 12 12:59:00	66.9	68.7	73.9
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0	0	18Oct 12 12:54:05	70.5	71.3	77.5	0	0	18Oct 12 12:59:55	63.9	64.8	70.9
0	0	18Oct 12 12:54:10	67.6	69.2	74.6	0	0	18Oct 12 13:00:00	66.1	67.5	73.1
0	0	18Oct 12 12:54:15	66.4	66.8	73.4	0	0	18Oct 12 13:00:05	68.8	69.7	75.8
0	0	18Oct 12 12:54:20	64.8	66.2	71.7	0	0	18Oct 12 13:00:10	67.6	69.6	74.6
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0	0	18Oct 12 12:54:35	64.8	65.3	71.8	0	0	18Oct 12 13:00:25	68.0	69.3	75.0
0	0	18Oct 12 12:54:40	65.2	67.0	72.2	0	0	18Oct 12 13:00:30	65.9	68.3	72.9
0	0	18Oct 12 12:54:45	67.5	68.7	74.5	0	0	18Oct 12 13:00:35	65.8	66.7	72.7
0	0	18Oct 12 12:54:50	68.7	70.7	75.7	0	0	18Oct 12 13:00:40	65.7	66.9	72.7
0	0	18Oct 12 12:54:55	67.9	69.8	74.9	0	0	18Oct 12 13:00:45	66.1	66.8	73.0
0	0	18Oct 12 12:55:00	66.6	68.5	73.5	0	0	18Oct 12 13:00:50	65.7	66.8	72.7
0	0	18Oct 12 12:55:05	64.9	65.4	71.9	0	0	18Oct 12 13:00:55	63.0	63.5	70.0
0	0	18Oct 12 12:55:10	66.0	68.2	73.0	0	0	18Oct 12 13:01:00	66.8	69.3	73.8
0	0	18Oct 12 12:55:15	66.2	67.3	73.2	0	0	18Oct 12 13:01:05	64.7	67.8	71.7
0	0	18Oct 12 12:55:20	64.2	65.0	71.2	0	0	18Oct 12 13:01:10	64.8	66.2	71.8
0	0	18Oct 12 12:55:25	63.9	64.7	70.9	0	0	18Oct 12 13:01:15	65.3	66.5	72.3
0	0	18Oct 12 12:55:30	67.4	69.0	74.4	0	0	18Oct 12 13:01:20	62.1	64.0	69.0
0	0	18Oct 12 12:55:35	64.0	65.8	71.0	0	0	18Oct 12 13:01:25	62.2	63.0	69.2
0	0	18Oct 12 12:55:40	60.6	61.7	67.6	0	0	18Oct 12 13:01:30	63.2	64.7	70.1
0	0	18Oct 12 12:55:45	60.3	60.9	67.3	0	0	18Oct 12 13:01:35	64.8	65.5	71.8
0	0	18Oct 12 12:55:50	61.1	62.8	68.1	0	0	18Oct 12 13:01:40	64.1	64.8	71.0
0	0	18Oct 12 12:55:55	65.4	66.5	72.3	0	0	18Oct 12 13:01:45	63.8	64.3	70.8
0	0	18Oct 12 12:56:00	62.9	65.4	69.9	0	0	18Oct 12 13:01:50	63.7	65.2	70.7
0	0	18Oct 12 12:56:05	62.5	63.2	69.5	0	0	18Oct 12 13:01:55	63.9	65.2	70.8
0	0	18Oct 12 12:56:10	62.6	64.9	69.5	0	0	18Oct 12 13:02:00	62.4	64.0	69.3
0	0	18Oct 12 12:56:15	64.6	65.8	71.5	0	0	18Oct 12 13:02:05	62.4	63.4	69.4
0	0	18Oct 12 12:56:20	64.2	66.0	71.2	0	0	18Oct 12 13:02:10	61.2	62.0	68.2
0	0	18Oct 12 12:56:25	60.6	61.2	67.6	0	0	18Oct 12 13:02:15	62.9	63.7	69.9
0	0	18Oct 12 12:56:30	60.7	61.4	67.7	0	0	18Oct 12 13:02:20	62.3	63.2	69.3
0	0	18Oct 12 12:56:35	62.3	63.3	69.3	0	0	18Oct 12 13:02:25	63.8	64.9	70.7
0	0	18Oct 12 12:56:40	64.2	66.0	71.2	0	0	18Oct 12 13:02:30	61.2	63.7	68.2
0	0	18Oct 12 12:56:45	68.4	70.2	75.4	0	0	18Oct 12 13:02:35	62.1	62.8	69.1
0	0	18Oct 12 12:56:50	68.4	70.4	75.4	0	0	18Oct 12 13:02:40	65.5	69.4	72.5
0	0	18Oct 12 12:56:55	64.1	65.3	71.1	0	0	18Oct 12 13:02:45	67.5	69.4	74.5
0	0	18Oct 12 12:57:00	61.5	62.2	68.5	0	0	18Oct 12 13:02:50	68.4	69.5	75.4
0	0	18Oct 12 12:57:05	60.7	61.5	67.7	0	0	18Oct 12 13:02:55	64.1	67.8	71.0
0	0	18Oct 12 12:57:10	64.4	68.2	71.4	0	0	18Oct 12 13:03:00	63.4	64.7	70.4
0	0	18Oct 12 12:57:15	69.4	71.9	76.4	0	0	18Oct 12 13:03:05	62.0	62.7	69.0
0	0	18Oct 12 12:57:20	70.7	72.9	77.7	0	0	18Oct 12 13:03:10	59.8	60.8	66.8
0	0	18Oct 12 12:57:25	66.0	66.9	73.0	0	0	18Oct 12 13:03:15	65.5	67.5	72.5
0	0	18Oct 12 12:57:30	68.4	70.9	75.4	0	0	18Oct 12 13:03:20	65.8	67.0	72.8
0	0	18Oct 12 12:57:35	72.6	73.2	79.6	0	0	18Oct 12 13:03:25	67.6	68.5	74.6
0	0	18Oct 12 12:57:40	70.4	73.2	77.4	0	0	18Oct 12 13:03:30	66.9	68.9	73.9
0	0	18Oct 12 12:57:45	64.8	66.4	71.8	0	0	18Oct 12 13:03:35	67.7	69.4	74.7
0	0	18Oct 12 12:57:50	64.3	65.8	71.2	0	0	18Oct 12 13:03:40	69.0	70.3	76.0
0	0	18Oct 12 12:57:55	67.1	68.4	74.0	0	0	18Oct 12 13:03:45	66.9	69.2	73.9
0	0	18Oct 12 12:58:00	66.5	67.2	73.5	0	0	18Oct 12 13:03:50	65.9	67.5	72.8
0	0	18Oct 12 12:58:05	68.0	69.0	75.0	0	0	18Oct 12 13:03:55	66.9	68.3	73.9
0	0	18Oct 12 12:58:10	65.5	66.7	72.5	0	0	18Oct 12 13:04:00	63.7	66.9	70.7
0	0	18Oct 12 12:58:15	63.3	64.3	70.3	0	0	18Oct 12 13:04:05	60.9	62.5	67.9
0	0	18Oct 12 12:58:20	66.1	67.8	73.1	0	0	18Oct 12 13:04:10	63.7	64.2	70.7
0	0	18Oct 12 12:58:25	66.7	67.5	73.7	0	0	18Oct 12 13:04:15	64.2	66.2	71.1
0	0	18Oct 12 12:58:30	67.0	67.7	74.0	0	0	18Oct 12 13:04:20	66.1	67.5	73.1

0	0	18Oct 12 13:04:25	64.7	65.9	71.7
0	0	18Oct 12 13:04:30	62.7	63.3	69.7
0	0	18Oct 12 13:04:35	66.4	70.7	73.4
0	0	18Oct 12 13:04:40	71.7	73.2	78.7
0	0	18Oct 12 13:04:45	71.2	73.0	78.2
0	0	18Oct 12 13:04:50	65.6	67.7	72.6
0	0	18Oct 12 13:04:55	64.4	65.5	71.4
0	0	18Oct 12 13:05:00	63.1	64.2	70.0
0	0	18Oct 12 13:05:05	62.4	63.0	69.4
0	0	18Oct 12 13:05:10	64.2	66.0	71.2
0	0	18Oct 12 13:05:15	68.3	70.4	75.3
0	0	18Oct 12 13:05:20	72.1	73.0	79.1
0	0	18Oct 12 13:05:25	68.2	70.4	75.2
0	0	18Oct 12 13:05:30	63.5	64.8	70.5
0	0	18Oct 12 13:05:35	66.2	68.2	73.2
0	0	18Oct 12 13:05:40	66.2	68.2	73.2
0	0	18Oct 12 13:05:45	63.2	64.9	70.1
0	0	18Oct 12 13:05:50	63.3	65.3	70.2
0	0	18Oct 12 13:05:55	63.4	65.0	70.4
0	0	18Oct 12 13:06:00	61.1	61.8	68.1
0	0	18Oct 12 13:06:05	61.9	62.5	68.9
0	0	18Oct 12 13:06:10	61.2	61.9	68.2
0	0	18Oct 12 13:06:15	62.6	63.2	69.5
0	0	18Oct 12 13:06:20	62.5	63.3	69.5
0	0	18Oct 12 13:06:25	63.3	64.2	70.3
0	0	18Oct 12 13:06:30	65.2	66.9	72.2
0	0	18Oct 12 13:06:35	63.9	66.4	70.9
0	0	18Oct 12 13:06:40	62.3	63.7	69.3
0	0	18Oct 12 13:06:45	66.2	67.4	73.1
0	0	18Oct 12 13:06:50	66.7	69.9	73.7
0	0	18Oct 12 13:06:55	71.6	72.5	78.6
0	0	18Oct 12 13:07:00	71.8	73.0	78.8
0	0	18Oct 12 13:07:05	67.1	70.2	74.0
0	0	18Oct 12 13:07:10	61.6	63.5	68.6
0	0	18Oct 12 13:07:15	61.5	62.0	68.5
0	0	18Oct 12 13:07:20	62.7	63.4	69.7
0	0	18Oct 12 13:07:25	63.4	64.2	70.4
0	0	18Oct 12 13:07:30	65.3	66.5	72.3
0	0	18Oct 12 13:07:35	64.8	66.9	71.8
0	0	18Oct 12 13:07:40	66.3	67.2	73.3
0	0	18Oct 12 13:07:45	70.6	72.5	77.6
0	0	18Oct 12 13:07:50	69.5	71.2	76.5
0	0	18Oct 12 13:07:55	67.2	68.4	74.2
0	0	18Oct 12 13:08:00	66.4	66.5	73.4

Stop Key
 Run Key

ATTACHMENT 2

Traffic Noise Prediction Model

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FHWA RD-77-108
Traffic Noise Prediction Model
Data Input Sheet

Project Name : OMCPU
Project Number : 3957.1
Modeled Condition : Adopted

Surface FCNEL
Assessm Soft
Peak ratio 10
Traffic De ADT

Segment	Roadway	Segment From/To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	Airway Road	Old Otay Mesa Rd. to Caliente Ave.	20,500	40	100	90	3	2	78.00	8.00	14.00	
2	Airway Road	Caliente Ave. to Heritage Rd.	59,000	40	100	90	3	2	78.00	8.00	14.00	
3	Airway Road	Heritage Rd. to Cactus Rd.	39,500	40	100	90	3	2	78.00	8.00	14.00	
4	Airway Road	Cactus Rd. to Britannia Blvd.	46,500	40	100	90	3	2	78.00	8.00	14.00	
5	Airway Road	Britannia Blvd. to La Media Rd.	39,000	40	100	90	3	2	78.00	8.00	14.00	
6	Airway Road	La Media Rd. to Harves t Rd.	54,500	40	100	90	3	2	78.00	8.00	14.00	
7	Airway Road	Harvest Rd. to Sanyo Ave.	49,500	40	100	90	3	2	78.00	8.00	14.00	
8	Airway Road	Sanyo Ave. to Paseo de las Americas	20,500	40	100	90	3	2	78.00	8.00	14.00	
9	Airway Road	Paseo de las Americas to Michael Faraday Dr.	17,000	40	100	90	3	2	78.00	8.00	14.00	
10	Airway Road	Michael Faraday Dr. to Enrico Fermi Dr.	16,000	40	100	90	3	2	78.00	8.00	14.00	
11	Airway Road	Enrico Fermi Dr. to Siempre Viva Rd.	15,000	40	100	90	3	2	78.00	8.00	14.00	
12	Avendia De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	9,000	30	100	90	3	2	78.00	8.00	14.00	
13	Avendia De Las Vistas	Vista Santo Domingo to Dennergy Rd.	25,000	30	100	90	3	2	78.00	8.00	14.00	
14	Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.	18,000	35	100	90	3	2	78.00	8.00	14.00	
15	Aviator Road	Heritage Rd. to La Media Rd.	15,500	45	100	90	3	2	78.00	8.00	14.00	
16	Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	24,500	35	100	90	3	2	78.00	8.00	14.00	
17	Beyer Boulevard	Old Otay Mesa Rd. to East End	3,000	45	100	90	3	2	78.00	8.00	14.00	
18	Britannia Boulevard	Otay Mesa Rd. to SR-905	19,500	40	100	90	3	2	78.00	8.00	14.00	
19	Britannia Boulevard	SR-905 to Airway Rd.	52,000	40	100	65	10	20	78.00	8.00	14.00	
20	Britannia Boulevard	Siempre Viva Rd. to South End	32,500	40	100	65	10	20	78.00	8.00	14.00	
21	Britannia Boulevard	Airway Rd. to Siempre Viva Rd.	33,000	40	100	65	10	20	78.00	8.00	14.00	
22	Cactus Road	Otay Mesa Rd. to Airway Rd.	35,000	45	100	90	3	2	78.00	8.00	14.00	
23	Cactus Road	Airway Rd. to Siempre Viva Rd.	23,000	45	100	90	3	2	78.00	8.00	14.00	
24	Cactus Road	Siempre Viva Rd. to South End	29,500	45	100	90	3	2	78.00	8.00	14.00	
25	Caliente Avenue	Otay Mesa Rd. to SR-905	39,000	30	100	90	3	2	78.00	8.00	14.00	
26	Caliente Avenue	Otay Mesa Rd. to SR-905	39,000	30	100	90	3	2	78.00	8.00	14.00	
27	Caliente Avenue	SR-905 to Airway Rd.	38,000	40	100	90	3	2	78.00	8.00	14.00	
28	Caliente Avenue	Airway Rd. to Siempre Viva Rd.	48,000	40	100	90	3	2	78.00	8.00	14.00	
29	Caliente Avenue	Airway Rd. to Siempre Viva Rd.	48,000	40	100	90	3	2	78.00	8.00	14.00	
30	Camino Maquiladora	Heritage Rd. to Pacific Rim Ct .	7,500	30	100	90	3	2	78.00	8.00	14.00	
31	Camino Maquiladora	Pacific Rim Ct . to Cactus Rd.	6,000	30	100	90	3	2	78.00	8.00	14.00	
32	Camino Maquiladora	Cactus Rd. to Continental St.	5,500	30	100	90	3	2	78.00	8.00	14.00	
33	Centurion Street	Airway Rd. to Gigantic St.	18,500	40	100	90	3	2	78.00	8.00	14.00	
34	Continental Street	South of Otay Mes a Rd.	4,500	35	100	90	3	2	78.00	8.00	14.00	
35	Continental Street	North of Airway Rd.	10,000	35	100	90	3	2	78.00	8.00	14.00	
36	Corporate Center Drive	Progressive Ave. to Innovative Dr.	13,000	40	100	90	3	2	78.00	8.00	14.00	
37	Corporate Center Drive	Otay Mes a Rd. to Progres s ive Ave.	24,500	40	100	90	3	2	78.00	8.00	14.00	
38	Corporate Center Drive	South End to Otay Mesa Rd.	17,500	40	100	90	3	2	78.00	8.00	14.00	
39	Datsun Street	Innovative Dr. to Heritage Rd.	31,000	45	100	90	3	2	78.00	8.00	14.00	
40	Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	23,500	35	100	90	3	2	78.00	8.00	14.00	
41	Del Sol Boulevard	Surf Cres t Dr. to Riviera Pointe	26,000	35	100	90	3	2	78.00	8.00	14.00	
42	Del Sol Boulevard	Riviera Pointe to Dennergy Rd.	26,000	35	100	90	3	2	78.00	8.00	14.00	
43	Del Sol Boulevard	Dennergy Rd. to I-805	20,000	35	100	90	3	2	78.00	8.00	14.00	
44	Dennergy Road	Palm Ave. to Del Sol Blvd.	28,500	35	100	90	3	2	78.00	8.00	14.00	
45	Dennergy Road	Palm Ave. to Regatta Ln.	21,000	35	100	90	3	2	78.00	8.00	14.00	

46	Dennerly Road	Regatta Ln. to Red Coral Ln.	15,000	35	100	90	3	2	78.00	8.00	14.00
47	Dennerly Road	Red Coral Ln. to Black Coral Ln.	15,000	35	100	90	3	2	78.00	8.00	14.00
48	Dennerly Road	Black Coral Ln. to East End	21,500	35	100	90	3	2	78.00	8.00	14.00
49	Emerald Crest Dr.	Otay Mesa Rd. to South End	25,000	35	100	90	3	2	78.00	8.00	14.00
50	Enrico Fermi Drive	Siempre Viva Rd. to Via de la Amistad	10,500	40	100	65	10	20	78.00	8.00	14.00
51	Enrico Fermi Drive	Airway Rd. to Siempre Viva Rd.	8,000	40	100	65	10	20	78.00	8.00	14.00
52	Enrico Fermi Drive	SR-11 to Airway Rd.	17,000	40	100	65	10	20	78.00	8.00	14.00
53	Excellante Street	Airway Rd. to Gigantic St.	19,500	40	100	90	3	2	78.00	8.00	14.00
54	Exposition Way / Vista Sar	Avenida De Las Vistas to Corporate Center Dr.	17,000	35	100	90	3	2	78.00	8.00	14.00
55	Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	9,000	40	100	90	3	2	78.00	8.00	14.00
56	Gigantic Street	Excellante St. to Centurion St.	19,500	40	100	90	3	2	78.00	8.00	14.00
57	Harvest Road	Otay Center Dr. to Siempre Viva Rd.	38,000	40	100	90	3	2	78.00	8.00	14.00
58	Harvest Road	Airway Rd. to Otay Center Dr.	34,000	40	100	90	3	2	78.00	8.00	14.00
59	Harvest Road	South of Otay Mesa Rd.	11,000	40	100	90	3	2	78.00	8.00	14.00
60	Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	27,000	35	100	90	3	2	78.00	8.00	14.00
61	Road	Avenida De Las Vistas to Datsun St.	77,500	45	100	90	3	2	78.00	8.00	14.00
62	Road	Datsun St. to Otay Mesa Rd.	47,500	45	100	90	3	2	78.00	8.00	14.00
63	Road	Otay Mesa Rd. to SR-905	17,500	45	100	90	3	2	78.00	8.00	14.00
64	Road	SR-905 to Airway Rd.	52,000	45	100	90	3	2	78.00	8.00	14.00
65	Road	Main St. to Avenida De Las Vistas	87,000	45	100	90	3	2	78.00	8.00	14.00
66	Road	Airway Rd. to Siempre Viva Rd.	58,000	45	100	90	3	2	78.00	8.00	14.00
67	I-805	Main St. to Palm Ave.	263,000	65	100	93.1	4.2	2.7	78.00	8.00	14.00
68	I-805	Palm Ave. to SR-905	232,500	65	100	93.1	4.2	2.7	78.00	8.00	14.00
69	I-805	SR-905 to I-5	107,500	65	100	93.1	4.2	2.7	78.00	8.00	14.00
70	I-805	I-5 to Border	127,500	65	100	93.1	4.2	2.7	78.00	8.00	14.00
71	Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	16,000	30	100	90	3	2	78.00	8.00	14.00
72	La Media Road	Lone Star Rd. to Aviator Rd.	64,500	45	100	65	10	20	78.00	8.00	14.00
73	La Media Road	Aviator Rd. to Otay Mesa Rd.	64,500	45	100	65	10	20	78.00	8.00	14.00
74	La Media Road	Otay Mesa Rd. to SR-905	48,000	45	100	65	10	20	78.00	8.00	14.00
75	La Media Road	SR-905 to Airway Rd.	75,500	40	100	65	10	20	78.00	8.00	14.00
76	La Media Road	Airway Rd. to Siempre Viva Rd.	32,000	40	100	65	10	20	78.00	8.00	14.00
77	La Media Road	Birch Rd. to Lone Star Rd.	93,000	40	100	65	10	20	78.00	8.00	14.00
78	Lone Star Road	La Media Rd. to SR-125	38,000	40	100	65	10	20	78.00	8.00	14.00
79	Lone Star Road	SR-125 to Piper Ranch Rd.	55,000	40	100	65	10	20	78.00	8.00	14.00
80	Lone Star Road	SR-125 to Piper Ranch Rd.	55,000	40	100	65	10	20	78.00	8.00	14.00
81	Lone Star Road	Piper Ranch Rd. to City / County Boundary	54,500	40	100	65	10	20	78.00	8.00	14.00
82	Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	16,500	35	100	90	3	2	78.00	8.00	14.00
83	Michael Faraday Drive	Airway Rd. to Siempre Viva Rd.	9,500	30	100	90	3	2	78.00	8.00	14.00
84	Michael Faraday Drive	Siempre Viva Rd. to Marconi Dr.	5,500	30	100	90	3	2	78.00	8.00	14.00
85	Ocean View Hills Pkwy	Dennerly Rd. to Del Sol Blvd.	27,000	45	100	90	3	2	78.00	8.00	14.00
86	Ocean View Hills Pkwy	Del Sol Blvd. to Street A	45,000	40	100	90	3	2	78.00	8.00	14.00
87	Ocean View Hills Pkwy	Street A to Otay Mesa Rd.	23,500	40	100	90	3	2	78.00	8.00	14.00
88	Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	22,000	40	100	90	3	2	78.00	8.00	14.00
89	Old Otay Mesa Road	Airway Rd. to Crescent Bay Dr.	20,000	40	100	90	3	2	78.00	8.00	14.00
90	Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	21,500	40	100	90	3	2	78.00	8.00	14.00
91	Otay Center Drive	Harvest Rd. to Siempre Viva Rd.	14,000	35	100	90	3	2	78.00	8.00	14.00
92	Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	36,500	40	100	90	3	2	78.00	8.00	14.00
93	Otay Mesa Road	Street A to Caliente Ave.	32,000	45	100	90	3	2	78.00	8.00	14.00
94	Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	78,000	45	100	90	3	2	78.00	8.00	14.00
95	Otay Mesa Road	Corporate Center Dr. to Innovative Dr.	36,000	45	100	90	3	2	78.00	8.00	14.00
96	Otay Mesa Road	Innovative Dr. to Heritage Rd.	42,000	45	100	90	3	2	78.00	8.00	14.00
97	Otay Mesa Road	Heritage Rd. to Cactus Rd.	74,000	50	100	90	3	2	78.00	8.00	14.00
98	Otay Mesa Road	Cactus Rd. to Britannia Blvd.	47,500	50	100	90	3	2	78.00	8.00	14.00
99	Otay Mesa Road	Britannia Blvd. to Ailsa Ct.	58,500	50	100	90	3	2	78.00	8.00	14.00
100	Otay Mesa Road	Ailsa Ct. to La Media Rd.	49,500	50	100	90	3	2	78.00	8.00	14.00

101	Otay Mesa Road	La Media Rd. to Piper Ranch Rd.	50,000	45	100	90	3	2	78.00	8.00	14.00
102	Otay Mesa Road	Piper Ranch Rd. to SR-125	22,500	45	100	90	3	2	78.00	8.00	14.00
103	Otay Mesa Road	SR-125 to Harvest Rd.	42,500	45	100	90	3	2	78.00	8.00	14.00
104	Otay Mesa Road	Harvest Rd. to Sanyo Ave.	38,500	45	100	90	3	2	78.00	8.00	14.00
105	Otay Mesa Road	Sanyo Ave. to Enrico Fermi Dr.	14,000	40	100	90	3	2	78.00	8.00	14.00
106	Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	4,000	45	100	90	3	2	78.00	8.00	14.00
107	Palm Ave.	Piccard Ave to I-805	69,500	35	100	90	3	2	78.00	8.00	14.00
108	Palm Ave.	I-805 to Denny Rd.	69,500	45	100	90	3	2	78.00	8.00	14.00
109	Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	33,500	35	100	90	3	2	78.00	8.00	14.00
110	Paseo de las Americas	Siempre Viva Rd. to Marconi Dr.	16,000	35	100	90	3	2	78.00	8.00	14.00
111	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	17,000	40	100	90	3	2	78.00	8.00	14.00
112	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	17,000	40	100	90	3	2	78.00	8.00	14.00
113	Progressive Avenue	Corporate Center Dr. to Innovative Dr.	17,000	30	100	90	3	2	78.00	8.00	14.00
114	Sanyo Avenue	Otay Mesa Rd. to Airway Rd.	43,000	45	100	90	3	2	78.00	8.00	14.00
115	Siempre Viva Rd.	Cactus Rd. to Britannia Blvd.	44,500	40	100	90	3	2	78.00	8.00	14.00
116	Siempre Viva Rd.	Britannia Blvd. to La Media Rd.	52,500	40	100	90	3	2	78.00	8.00	14.00
117	Siempre Viva Rd.	La Media Rd. to Harvest Rd.	34,500	40	100	90	3	2	78.00	8.00	14.00
118	Siempre Viva Rd.	Harvest Rd. to Otay Center Dr.	35,000	40	100	90	3	2	78.00	8.00	14.00
119	Siempre Viva Rd.	Otay Center Dr. to SR-905	64,500	40	100	90	3	2	78.00	8.00	14.00
120	Siempre Viva Rd.	SR-905 to Paseo de las Americas	72,000	40	100	90	3	2	78.00	8.00	14.00
121	Siempre Viva Rd.	Paseo de las Americas to Michael Faraday Dr.	20,500	40	100	90	3	2	78.00	8.00	14.00
122	Siempre Viva Rd.	Michael Faraday Dr. to Enrico Fermi Dr.	21,000	40	100	90	3	2	78.00	8.00	14.00
123	Siempre Viva Rd.	Enrico Fermi Dr. to SR-11	21,000	40	100	90	3	2	78.00	8.00	14.00
124	Siempre Viva Rd.	Caliente Ave. to East Beyer Blvd.	47,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
125	Siempre Viva Rd.	Heritage Rd. to Cactus Rd.	48,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
126	SR-11	SR-905 to Enrico Fermi Dr.	50,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
127	SR-11	Enrico Fermi Dr. to Siempre Viva Rd.	25,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
128	SR-11	Siempre Viva Rd. to Border	39,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
129	SR-125	Birch Rd. to Lone Star Rd.	102,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
130	SR-125	Lone Star Rd. to SR-905	76,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
131	SR-905	Picador Blvd. to I-805	144,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
132	SR-905	I-805 to Caliente Ave.	253,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
133	SR-905	Caliente Ave. to Heritage Rd.	224,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
134	SR-905	Heritage Rd. to Britannia Blvd.	193,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
135	SR-905	Britannia Blvd. to La Media Rd.	167,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
136	SR-905	La Media Rd. to SR-125	121,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
137	SR-905	SR-125 to Siempre Viva Rd.	103,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
138	SR-905	Siempre Viva Rd. to Border	64,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
139	St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	20,500	30	100	90	3	2	78.00	8.00	14.00
140	Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	19,500	40	100	90	3	2	78.00	8.00	14.00

Predicted Noise Levels

Project Name : OMCPU
Project Number : 3957.1
Modeled Condition : Adopted
0 Assessment Metric:

Segment	Roadway	Segment From/To	Noise Levels, dBA Assessment Metric:				Distance to Traffic Noise Level Contours, Feet				
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB
1	Airway Road	Old Otay Mesa Rd. to Caliente Ave.	65.9	60.1	63.1	68	22	70	221	699	2,211
2	Airway Road	Caliente Ave. to Heritage Rd.	70.5	64.7	67.7	73	64	201	636	2,012	6,364
3	Airway Road	Heritage Rd. to Cactus Rd.	68.8	62.9	66.0	71	43	135	426	1,347	4,260
4	Airway Road	Cactus Rd. to Britannia Blvd.	69.5	63.6	66.7	72	50	159	502	1,586	5,015
5	Airway Road	Britannia Blvd. to La Media Rd.	68.7	62.9	65.9	71	42	133	421	1,330	4,206
6	Airway Road	La Media Rd. to Harvest Rd.	70.2	64.3	67.4	73	59	186	588	1,859	5,878
7	Airway Road	Harvest Rd. to Sanyo Ave.	69.8	63.9	67.0	72	53	169	534	1,688	5,339
8	Otay Center Drive	Harvest Rd. to Siempre Viva Rd.	62.6	57.5	61.0	66	11	36	115	363	1,147
9	Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	68.4	62.6	65.6	71	39	124	394	1,245	3,937
10	Airway Road	Michael Faraday Dr. to Enrico Fermi Dr.	64.8	59.0	62.1	67	17	55	173	546	1,726
11	Airway Road	Enrico Fermi Dr. to Siempre Viva Rd.	64.6	58.7	61.8	67	16	51	162	512	1,618
12	Avenida De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	58.8	54.6	59.9	63	6	20	64	202	638
13	Avenida De Las Vistas	Vista Santo Domingo to Dennerly Rd.	63.2	59.0	64.4	67	18	56	177	560	1,771
14	Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.	63.7	58.6	62.0	67	15	47	148	467	1,475
15	Aviator Road	Heritage Rd. to La Media Rd.	66.2	59.7	62.4	68	22	68	216	681	2,155
16	Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	65.0	59.9	63.4	68	20	63	201	635	2,008
17	Beyer Boulevard	Old Otay Mesa Rd. to East End	59.1	52.5	55.3	61	4	13	42	132	417
18	Britannia Boulevard	Otay Mesa Rd. to SR-905	65.7	59.9	62.9	68	21	67	210	665	2,103
19	Britannia Boulevard	SR-905 to Airway Rd.	68.6	69.3	77.2	78	215	681	2,152	6,807	21,525
20	Britannia Boulevard	Siempre Viva Rd. to South End	66.5	67.3	75.1	76	135	425	1,345	4,254	13,453
21	Britannia Boulevard	Airway Rd. to Siempre Viva Rd.	66.6	67.4	75.2	76	137	432	1,366	4,320	13,660
22	Cactus Road	Otay Mesa Rd. to Airway Rd.	69.7	63.2	65.9	72	49	154	487	1,539	4,866
23	Cactus Road	Airway Rd. to Siempre Viva Rd.	67.9	61.4	64.1	70	32	101	320	1,011	3,198
24	Cactus Road	Siempre Viva Rd. to South End	69.0	62.5	65.2	71	41	130	410	1,297	4,102
25	Caliente Avenue	Otay Mesa Rd. to SR-905	65.1	60.9	66.3	69	28	87	276	874	2,763
26	Caliente Avenue	Otay Mesa Rd. to SR-905	65.1	60.9	66.3	69	28	87	276	874	2,763
27	Caliente Avenue	SR-905 to Airway Rd.	68.6	62.8	65.8	71	41	130	410	1,296	4,099
28	Caliente Avenue	Airway Rd. to Siempre Viva Rd.	69.6	63.8	66.8	72	52	164	518	1,637	5,177
29	Caliente Avenue	Airway Rd. to Siempre Viva Rd.	69.6	63.8	66.8	72	52	164	518	1,637	5,177
30	Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	58.0	53.8	59.1	62	5	17	53	168	531
31	Camino Maquiladora	Pacific Rim Ct. to Cactus Rd.	57.0	52.8	58.2	61	4	13	43	134	425
32	Camino Maquiladora	Cactus Rd. to Continental St.	56.6	52.4	57.8	61	4	12	39	123	390
33	Centurion Street	Airway Rd. to Gigantic St.	65.5	59.6	62.7	68	20	63	200	631	1,995
34	Continental Street	South of Otay Mesa Rd.	57.7	52.6	56.0	61	4	12	37	117	369
35	Continental Street	North of Airway Rd.	61.1	56.1	59.5	64	8	26	82	259	820
36	Corporate Center Drive	Progressive Ave. to Innovative Dr.	63.9	58.1	61.2	66	14	44	140	443	1,402
37	Corporate Center Drive	Otay Mesa Rd. to Progressive Ave.	66.7	60.9	63.9	69	26	84	264	836	2,643
38	Corporate Center Drive	South End to Otay Mesa Rd.	65.2	59.4	62.5	68	19	60	189	597	1,888
39	Datsun Street	Innovative Dr. to Heritage Rd.	69.2	62.7	65.4	71	43	136	431	1,363	4,310
40	Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	64.8	59.8	63.2	68	19	61	193	609	1,926
41	Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	65.3	60.2	63.6	68	21	67	213	674	2,131
42	Del Sol Boulevard	Riviera Pointe to Dennerly Rd.	65.3	60.2	63.6	68	21	67	213	674	2,131
43	Del Sol Boulevard	Dennerly Rd. to I-805	64.1	59.1	62.5	67	16	52	164	518	1,639
44	Dennerly Road	Palm Ave. to Del Sol Blvd.	65.7	60.6	64.0	69	23	74	234	739	2,336
45	Dennerly Road	Palm Ave. to Regatta Ln.	64.4	59.3	62.7	67	17	54	172	544	1,721
46	Dennerly Road	Regatta Ln. to Red Coral Ln.	62.9	57.8	61.3	66	12	39	123	389	1,229
47	Dennerly Road	Red Coral Ln. to Black Coral Ln.	62.9	57.8	61.3	66	12	39	123	389	1,229
48	Dennerly Road	Black Coral Ln. to East End	64.5	59.4	62.8	67	18	56	176	557	1,762
49	Emerald Crest Dr.	Otay Mesa Rd. to South End	65.1	60.0	63.5	68	20	65	205	648	2,049
50	Enrico Fermi Drive	Siempre Viva Rd. to Via de la Amistad	61.6	62.4	70.2	71	43	137	435	1,374	4,346

51	Enrico Fermi Drive	Airway Rd. to Siempre Viva Rd.	60.4	61.2	69.1	70	33	105	331	1,047	3,312
52	Enrico Fermi Drive	SR-11 to Airway Rd.	63.7	64.5	72.3	73	70	223	704	2,225	7,037
53	Excellante Street	Airway Rd. to Gigantic St.	65.7	59.9	62.9	68	21	67	210	665	2,103
54	Exposition Way / Vista Sar	Avenida De Las Vistas to Corporate Center Dr.	63.4	58.4	61.8	66	14	44	139	441	1,393
55	Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	62.3	56.5	59.6	65	10	31	97	307	971
56	Gigantic Street	Excellante St. to Centurion St.	65.7	59.9	62.9	68	21	67	210	665	2,103
57	Harvest Road	Otay Center Dr. to Siempre Viva Rd.	68.6	62.8	65.8	71	41	130	410	1,296	4,099
58	Harvest Road	Airway Rd. to Otay Center Dr.	68.1	62.3	65.3	71	37	116	367	1,160	3,667
59	Harvest Road	South of Otay Mesa Rd.	63.2	57.4	60.4	66	12	38	119	375	1,186
60	Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	65.5	60.4	63.8	68	22	70	221	700	2,213
61	Heritage Road/Otay Valley	Avenida De Las Vistas to Datsun St.	73.2	66.7	69.4	75	108	341	1,078	3,407	10,775
62	Heritage Road/Otay Valley	Datsun St. to Otay Mesa Rd.	71.0	64.5	67.3	73	66	209	660	2,088	6,604
63	Heritage Road/Otay Valley	Otay Mesa Rd. to SR-905	66.7	60.2	62.9	69	24	77	243	769	2,433
64	Heritage Road/Otay Valley	SR-905 to Airway Rd.	71.4	64.9	67.7	74	72	229	723	2,286	7,230
65	Heritage Road/Otay Valley	Main St. to Avenida De Las Vistas	73.7	67.2	69.9	76	121	383	1,210	3,825	12,096
66	Heritage Road/Otay Valley	Airway Rd. to Siempre Viva Rd.	71.9	65.4	68.1	74	81	255	806	2,550	8,064
67	I-805	Main St. to Palm Ave.	83.2	75.9	77.5	85	964	3,050	9,645	30,500	96,449
68	I-805	Palm Ave. to SR-905	82.7	75.4	76.9	84	853	2,696	8,526	26,963	85,264
69	I-805	SR-905 to I-5	79.3	72.0	73.6	81	394	1,247	3,942	12,467	39,423
70	I-805	I-5 to Border	80.1	72.8	74.3	82	468	1,479	4,676	14,786	46,757
71	Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	61.2	57.1	62.4	66	11	36	113	359	1,134
72	La Media Road	Lone Star Rd. to Aviator Rd.	71.0	71.1	78.6	80	309	976	3,086	9,760	30,863
73	La Media Road	Aviator Rd. to Otay Mesa Rd.	71.0	71.1	78.6	80	309	976	3,086	9,760	30,863
74	La Media Road	Otay Mesa Rd. to SR-905	69.7	69.8	77.3	79	230	726	2,297	7,263	22,968
75	La Media Road	SR-905 to Airway Rd.	70.2	71.0	78.8	80	313	988	3,125	9,883	31,252
76	La Media Road	Airway Rd. to Siempre Viva Rd.	66.4	67.2	75.1	76	132	419	1,325	4,189	13,246
77	La Media Road	Birch Rd. to Lone Star Rd.	71.1	71.9	79.7	81	385	1,217	3,850	12,174	38,496
78	Lone Star Road	La Media Rd. to SR-125	67.2	68.0	75.8	77	157	497	1,573	4,974	15,730
79	Lone Star Road	SR-125 to Piper Ranch Rd.	68.8	69.6	77.4	79	228	720	2,277	7,199	22,767
80	Lone Star Road	SR-125 to Piper Ranch Rd.	68.8	69.6	77.4	79	228	720	2,277	7,199	22,767
81	Lone Star Road	Piper Ranch Rd. to City / County Boundary	68.8	69.6	77.4	79	226	713	2,256	7,134	22,560
82	Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	63.3	58.2	61.7	66	14	43	135	428	1,352
83	Michael Faraday Drive	Airway Rd. to Siempre Viva Rd.	59.0	54.8	60.2	63	7	21	67	213	673
84	Michael Faraday Drive	Siempre Viva Rd. to Marconi Dr.	56.6	52.4	57.8	61	4	12	39	123	390
85	Ocean View Hills Pkwy	Dennery Rd. to Del Sol Blvd.	68.6	62.1	64.8	71	38	119	375	1,187	3,754
86	Ocean View Hills Pkwy	Del Sol Blvd. to Street A	69.3	63.5	66.6	72	49	153	485	1,535	4,854
87	Ocean View Hills Pkwy	Street A to Otay Mesa Rd.	66.5	60.7	63.7	69	25	80	253	802	2,535
88	Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	66.2	60.4	63.4	69	24	75	237	750	2,373
89	Old Otay Mesa Road	Airway Rd. to Crescent Bay Dr.	65.8	60.0	63.0	68	22	68	216	682	2,157
90	Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	66.1	60.3	63.3	69	23	73	232	733	2,319
91	Otay Center Drive	Harvest Rd. to Siempre Viva Rd.	62.6	57.5	61.0	66	11	36	115	363	1,147
92	Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	68.4	62.6	65.6	71	39	124	394	1,245	3,937
93	Otay Mesa Road	Street A to Caliente Ave.	69.3	62.8	65.5	71	44	141	445	1,407	4,449
94	Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	73.2	66.7	69.4	75	108	343	1,084	3,429	10,845
95	Otay Mesa Road	Corporate Center Dr. to Innovative Dr.	69.8	63.3	66.1	72	50	158	501	1,583	5,005
96	Otay Mesa Road	Innovative Dr. to Heritage Rd.	70.5	64.0	66.7	73	58	185	584	1,847	5,840
97	Otay Mesa Road	Heritage Rd. to Cactus Rd.	74.3	67.2	69.6	76	130	412	1,303	4,120	13,028
98	Otay Mesa Road	Cactus Rd. to Britannia Blvd.	72.4	65.2	67.7	74	84	264	836	2,644	8,362
99	Otay Mesa Road	Britannia Blvd. to Ailsa Ct.	73.3	66.1	68.6	75	103	326	1,030	3,257	10,299
100	Otay Mesa Road	Ailsa Ct. to La Media Rd.	72.5	65.4	67.9	74	87	276	871	2,756	8,715
101	Otay Mesa Road	La Media Rd. to Piper Ranch Rd.	71.3	64.7	67.5	73	70	220	695	2,198	6,952
102	Otay Mesa Road	Piper Ranch Rd. to SR-125	67.8	61.3	64.0	70	31	99	313	989	3,128
103	Otay Mesa Road	SR-125 to Harvest Rd.	70.6	64.0	66.8	73	59	187	591	1,869	5,909
104	Otay Mesa Road	Harvest Rd. to Sanyo Ave.	70.1	63.6	66.3	72	54	169	535	1,693	5,353
105	Otay Mesa Road	Sanyo Ave. to Enrico Fermi Dr.	64.3	58.4	61.5	67	15	48	151	478	1,510
106	Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	60.3	53.8	56.5	62	6	18	56	176	556
107	Palm Ave.	Piccard Ave to I-805	69.6	64.5	67.9	73	57	180	570	1,801	5,696
108	Palm Ave.	I-805 to Dennery Rd.	72.7	66.2	68.9	75	97	306	966	3,056	9,663
109	Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	66.4	61.3	64.7	69	27	87	275	868	2,746

110	Paseo de las Americas	Siempre Viva Rd. to Marconi Dr.	63.2	58.1	61.5	66	13	41	131	415	1,311
111	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	65.1	59.3	62.3	68	18	58	183	580	1,834
112	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	65.1	59.3	62.3	68	18	58	183	580	1,834
113	Progressive Avenue	Corporate Center Dr. to Innovative Dr.	61.5	57.3	62.7	66	12	38	120	381	1,205
114	Sanyo Avenue	Otay Mesa Rd. to Airway Rd.	70.6	64.1	66.8	73	60	189	598	1,891	5,979
115	Siempre Viva Rd.	Cactus Rd. to Britannia Blvd.	69.3	63.4	66.5	72	48	152	480	1,518	4,800
116	Siempre Viva Rd.	Britannia Blvd. to La Media Rd.	70.0	64.2	67.2	73	57	179	566	1,791	5,663
117	Siempre Viva Rd.	La Media Rd. to Harvest Rd.	68.2	62.3	65.4	71	37	118	372	1,177	3,721
118	Siempre Viva Rd.	Harvest Rd. to Otay Center Dr.	68.2	62.4	65.5	71	38	119	378	1,194	3,775
119	Siempre Viva Rd.	Otay Center Dr. to SR-905	70.9	65.1	68.1	73	70	220	696	2,200	6,957
120	Siempre Viva Rd.	SR-905 to Paseo de las Americas	71.4	65.5	68.6	74	78	246	777	2,456	7,766
121	Siempre Viva Rd.	Paseo de las Americas to Michael Faraday Dr.	65.9	60.1	63.1	68	22	70	221	699	2,211
122	Siempre Viva Rd.	Michael Faraday Dr. to Enrico Fermi Dr.	66.0	60.2	63.2	69	23	72	227	716	2,265
123	Siempre Viva Rd.	Enrico Fermi Dr. to SR-11	66.0	60.2	63.2	69	23	72	227	716	2,265
124	Siempre Viva Rd.	Caliente Ave. to East Beyer Blvd.	75.7	69.6	69.8	77	176	558	1,765	5,581	17,648
125	Siempre Viva Rd.	Heritage Rd. to Cactus Rd.	75.8	69.7	69.9	78	180	570	1,802	5,700	18,024
126	SR-11	SR-905 to Enrico Fermi Dr.	76.0	69.9	70.1	78	190	600	1,896	5,997	18,963
127	SR-11	Enrico Fermi Dr. to Siempre Viva Rd.	72.9	66.9	67.1	75	94	297	939	2,969	9,387
128	SR-11	Siempre Viva Rd. to Border	74.9	68.8	69.1	77	148	469	1,483	4,690	14,832
129	SR-125	Birch Rd. to Lone Star Rd.	79.1	73.0	73.2	81	385	1,217	3,849	12,171	38,489
130	SR-125	Lone Star Rd. to SR-905	77.8	71.7	71.9	80	285	902	2,854	9,024	28,538
131	SR-905	Picador Blvd. to I-805	80.6	74.5	74.7	82	543	1,716	5,426	17,158	54,259
132	SR-905	I-805 to Caliente Ave.	83.0	76.9	77.1	85	952	3,010	9,519	30,101	95,189
133	SR-905	Caliente Ave. to Heritage Rd.	82.5	76.4	76.6	84	841	2,660	8,411	26,598	84,111
134	SR-905	Heritage Rd. to Britannia Blvd.	81.8	75.7	76.0	84	725	2,292	7,247	22,917	72,471
135	SR-905	Britannia Blvd. to La Media Rd.	81.2	75.1	75.3	83	627	1,983	6,271	19,830	62,708
136	SR-905	La Media Rd. to SR-125	79.8	73.7	73.9	82	454	1,437	4,544	14,368	45,435
137	SR-905	SR-125 to Siempre Viva Rd.	79.1	73.0	73.2	81	387	1,223	3,868	12,231	38,676
138	SR-905	Siempre Viva Rd. to Border	77.1	71.0	71.2	79	242	766	2,422	7,659	24,220
139	St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	62.3	58.1	63.5	67	15	46	145	459	1,453
140	Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	65.7	59.9	62.9	68	21	67	210	665	2,103

FHWA RD-77-108
Traffic Noise Prediction Model
Data Input Sheet

Project Name : OMCPU
Project Number : 3957.1
Modeled Condition : Proposed

Surface Refelction: CNEL
Assessment Metric: Soft
Peak ratio to ADT: 10.00
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment From/To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	Airway Road	Old Otay Mesa Rd. to Caliente Ave.	10,500	40	100	90	3	2	78.00	8.00	14.00	
2	Airway Road	Caliente Ave. to Heritage Rd.	38,000	40	100	90	3	2	78.00	8.00	14.00	
3	Airway Road	Heritage Rd. to Cactus Rd.	60,500	40	100	90	3	2	78.00	8.00	14.00	
4	Airway Road	Cactus Rd. to Britannia Blvd.	44,500	40	100	90	3	2	78.00	8.00	14.00	
5	Airway Road	Britannia Blvd. to La Media Rd.	35,000	40	100	90	3	2	78.00	8.00	14.00	
6	Airway Road	La Media Rd. to Harvest Rd.	34,000	40	100	90	3	2	78.00	8.00	14.00	
7	Airway Road	Harvest Rd. to Sanyo Ave.	26,500	40	100	90	3	2	78.00	8.00	14.00	
8	Airway Road	Sanyo Ave. to Paseo de las Americas	10,000	40	100	90	3	2	78.00	8.00	14.00	
9	Airway Road	Paseo de las Americas to Michael Faraday Dr.	9,500	40	100	90	3	2	78.00	8.00	14.00	
10	Airway Road	Michael Faraday Dr. to Enrico Fermi Dr.	12,000	40	100	90	3	2	78.00	8.00	14.00	
11	Airway Road	Enrico Fermi Dr. to Siempre Viva Rd.	12,500	40	100	90	3	2	78.00	8.00	14.00	
12	Avendia De Las Vistas	Otay Valley Rd. to Vis ta Santo Domingo	7,000	30	100	90	3	2	78.00	8.00	14.00	
13	Avendia De Las Vistas	Vista Santo Domingo to Dennerly Rd.	19,500	30	100	90	3	2	78.00	8.00	14.00	
14	Avenida Cos ta Azul	Otay Mesa Rd. to St. Andrews Ave.	19,000	35	100	90	3	2	78.00	8.00	14.00	
15	Aviator Road	Heritage Rd. to La Media Rd.	23,000	45	100	90	3	2	78.00	8.00	14.00	
16	Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	32,500	35	100	90	3	2	78.00	8.00	14.00	
17	Beyer Boulevard	Old Otay Mesa Rd. to Caliente Ave.	31,000	45	100	90	3	2	78.00	8.00	14.00	
18	Britannia Boulevard	Otay Mesa Rd. to SR-905	17,500	40	100	90	3	2	78.00	8.00	14.00	
19	Britannia Boulevard	SR-905 to Airway Rd.	63,000	40	100	65	10	20	78.00	8.00	14.00	
20	Britannia Boulevard	Airway Rd. to Siempre Viva Rd.	44,500	40	100	65	10	20	78.00	8.00	14.00	
21	Britannia Boulevard	Siempre Viva Rd. to South End	22,000	40	100	65	10	20	78.00	8.00	14.00	
22	Cactus Road	Otay Mesa Rd. to Airway Rd.	40,500	45	100	90	3	2	78.00	8.00	14.00	
23	Cactus Road	Airway Rd. to Siempre Viva Rd.	40,500	45	100	90	3	2	78.00	8.00	14.00	
24	Cactus Road	Siempre Viva Rd. to South End	11,000	45	100	90	3	2	78.00	8.00	14.00	
25	Caliente Avenue	Otay Mesa Rd. to SR-905	38,000	30	100	90	3	2	78.00	8.00	14.00	
26	Caliente Avenue	Otay Mesa Rd. to SR-905	38,000	30	100	90	3	2	78.00	8.00	14.00	
27	Caliente Avenue	SR-905 to Airway Rd.	32,000	40	100	90	3	2	78.00	8.00	14.00	
28	Caliente Avenue	Airway Rd. to Beyer Blvd.	46,000	40	100	90	3	2	78.00	8.00	14.00	
29	Caliente Avenue	Beyer Blvd. to Siempre Viva Rd.	41,000	40	100	90	3	2	78.00	8.00	14.00	
30	Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	9,500	30	100	90	3	2	78.00	8.00	14.00	
31	Camino Maquiladora	Pacific Rim Ct. to Cactus Rd.	7,500	30	100	90	3	2	78.00	8.00	14.00	
32	Camino Maquiladora	Cactus Rd. to Continental St.	6,000	30	100	90	3	2	78.00	8.00	14.00	
33	Centurion Street	Airway Rd. to Gigantic St.	6,000	40	100	90	3	2	78.00	8.00	14.00	
34	Continental Street	South of Otay Mesa Rd.	4,500	35	100	90	3	2	78.00	8.00	14.00	
35	Continental Street	North of Airway Rd.	12,000	35	100	90	3	2	78.00	8.00	14.00	
36	Corporate Center Drive	Progressive Ave. to Innovative Dr.	8,000	40	100	90	3	2	78.00	8.00	14.00	
37	Corporate Center Drive	Otay Mesa Rd. to Progressive Ave.	19,500	40	100	90	3	2	78.00	8.00	14.00	
38	Corporate Center Drive	South End to Otay Mesa Rd.	17,500	40	100	90	3	2	78.00	8.00	14.00	
39	Datsun Street	Innovative Dr. to Heritage Rd.	30,000	45	100	90	3	2	78.00	8.00	14.00	
40	Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	19,500	35	100	90	3	2	78.00	8.00	14.00	

41	Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	23,000	35	100	90	3	2	78.00	8.00	14.00
42	Del Sol Boulevard	Riviera Pointe to Dennery Rd.	23,000	35	100	90	3	2	78.00	8.00	14.00
43	Del Sol Boulevard	Dennery Rd. to I-805	16,000	35	100	90	3	2	78.00	8.00	14.00
44	Dennery Road	Palm Ave. to Del Sol Blvd.	28,000	35	100	90	3	2	78.00	8.00	14.00
45	Dennery Road	Palm Ave. to Regatta Ln.	19,500	35	100	90	3	2	78.00	8.00	14.00
46	Dennery Road	Regatta Ln. to Red Coral Ln.	12,500	35	100	90	3	2	78.00	8.00	14.00
47	Dennery Road	Red Coral Ln. to Black Coral Ln.	12,500	35	100	90	3	2	78.00	8.00	14.00
48	Dennery Road	Black Coral Ln. to East End	16,500	35	100	90	3	2	78.00	8.00	14.00
49	Emerald Crest Dr.	Otay Mesa Rd. to South End	25,000	35	100	90	3	2	78.00	8.00	14.00
50	Enrico Fermi Drive	Siempre Viva Rd. to Via de la Amistad	10,500	40	100	65	10	20	78.00	8.00	14.00
51	Enrico Fermi Drive	Airway Rd. to Siempre Viva Rd.	8,000	40	100	65	10	20	78.00	8.00	14.00
52	Enrico Fermi Drive	SR-11 to Airway Rd.*	15,500	40	100	65	10	20	78.00	8.00	14.00
53	Excellente Street	Airway Rd. to Gigantic St.	6,000	40	100	90	3	2	78.00	8.00	14.00
54	Exposition Way / Vista San	Avenida De Las Vistas to Corporate Dr.	12,500	35	100	90	3	2	78.00	8.00	14.00
55	Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	12,500	40	100	90	3	2	78.00	8.00	14.00
56	Gigantic Street	Excellente St. to Centurion St.	6,000	40	100	90	3	2	78.00	8.00	14.00
57	Harvest Road	Otay Center Dr. to Siempre Viva Rd.	10,000	40	100	90	3	2	78.00	8.00	14.00
58	Harvest Road	Airway Rd. to Otay Center Dr.	16,000	40	100	90	3	2	78.00	8.00	14.00
59	Harvest Road	South of Otay Mesa Rd.	8,500	40	100	90	3	2	78.00	8.00	14.00
60	Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	12,000	35	100	90	3	2	78.00	8.00	14.00
61	Road	Main St. to Avenida De Las Vistas	83,000	45	100	90	3	2	78.00	8.00	14.00
62	Road	Avenida De Las Vistas to Datsun St.	75,500	45	100	90	3	2	78.00	8.00	14.00
63	Road	Datsun St. to Otay Mesa Rd.	48,000	45	100	90	3	2	78.00	8.00	14.00
64	Road	Otay Mesa Rd. to SR-905	23,500	45	100	90	3	2	78.00	8.00	14.00
65	Road	SR-905 to Airway Rd.	35,000	45	100	90	3	2	78.00	8.00	14.00
66	Road	Main St. to Avenida De Las Vistas	1	45	100	90	3	2	78.00	8.00	14.00
67	Road	Airway Rd. to Siempre Viva Rd.	1	45	100	90	3	2	78.00	8.00	14.00
68	I-805	Main St. to Palm Ave.	248,000	65	100	93.1	4.2	2.7	78.00	8.00	14.00
69	I-805	Palm Ave. to SR-905	222,000	65	100	93.1	4.2	2.7	78.00	8.00	14.00
70	I-805	SR-905 to I-5	122,000	65	100	93.1	4.2	2.7	78.00	8.00	14.00
71	I-805	I-5 to Border	135,500	65	100	93.1	4.2	2.7	78.00	8.00	14.00
72	Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	15,000	30	100	90	3	2	78.00	8.00	14.00
73	La Media Road	Lone Star Rd. to Aviator Rd.	19,500	45	100	65	10	20	78.00	8.00	14.00
74	La Media Road	Aviator Rd. to Otay Mesa Rd.	22,500	45	100	65	10	20	78.00	8.00	14.00
75	La Media Road	Otay Mesa Rd. to SR-905	37,500	45	100	65	10	20	78.00	8.00	14.00
76	La Media Road	SR-905 to Airway Rd.	64,000	40	100	65	10	20	78.00	8.00	14.00
77	La Media Road	Airway Rd. to Siempre Viva Rd.	33,000	40	100	65	10	20	78.00	8.00	14.00
78	La Media Road	Birch Rd. to Lone Star Rd.	1	40	100	65	10	20	78.00	8.00	14.00
79	Lone Star Road	La Media Rd. to SR-125	1	40	100	65	10	20	78.00	8.00	14.00
80	Lone Star Road	SR-125 to Piper Ranch Rd.	35,000	40	100	65	10	20	78.00	8.00	14.00
81	Lone Star Road	SR-125 to Piper Ranch Rd.	35,000	40	100	65	10	20	78.00	8.00	14.00
82	Lone Star Road	Piper Ranch Rd. to City / County Boundary	36,000	40	100	65	10	20	78.00	8.00	14.00
83	Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	8,000	35	100	90	3	2	78.00	8.00	14.00
84	Michael Faraday Drive	Airway Rd. to Siempre Viva Rd.	6,500	30	100	90	3	2	78.00	8.00	14.00
85	Michael Faraday Drive	Siempre Viva Rd. to Marconi Dr.	8,000	30	100	90	3	2	78.00	8.00	14.00
86	Ocean View Hills Pkwy	Dennery Rd. to Del Sol Blvd.	22,000	45	100	90	3	2	78.00	8.00	14.00
87	Ocean View Hills Pkwy	Del Sol Blvd. to Street "A"	35,000	40	100	90	3	2	78.00	8.00	14.00
88	Ocean View Hills Pkwy	Street "A" to Otay Mesa Rd.	23,500	40	100	90	3	2	78.00	8.00	14.00
89	Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	22,000	40	100	90	3	2	78.00	8.00	14.00
90	Old Otay Mesa Road	Airway Rd. to Crescent Bay Dr.	14,500	40	100	90	3	2	78.00	8.00	14.00

91	Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	16,000	40	100	90	3	2	78.00	8.00	14.00
92	Otay Center Drive	Harvest Rd. to Siempre Viva Rd.	15,500	35	100	90	3	2	78.00	8.00	14.00
93	Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	24,000	40	100	90	3	2	78.00	8.00	14.00
94	Otay Mesa Road	Street A to Caliente Ave.	26,000	45	100	90	3	2	78.00	8.00	14.00
95	Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	72,500	45	100	90	3	2	78.00	8.00	14.00
96	Otay Mesa Road	Corporate Center Dr. to Innovative Dr.	51,500	45	100	90	3	2	78.00	8.00	14.00
97	Otay Mesa Road	Innovative Dr. to Heritage Rd.	46,500	45	100	90	3	2	78.00	8.00	14.00
98	Otay Mesa Road	Heritage Rd. to Cactus Rd.	76,500	50	100	90	3	2	78.00	8.00	14.00
99	Otay Mesa Road	Cactus Rd. to Britannia Blvd.	44,000	50	100	90	3	2	78.00	8.00	14.00
100	Otay Mesa Road	Britannia Blvd. to Ailsa Ct.	50,500	50	100	90	3	2	78.00	8.00	14.00
101	Otay Mesa Road	Ailsa Ct. to La Media Rd.	42,500	50	100	90	3	2	78.00	8.00	14.00
102	Otay Mesa Road	La Media Rd. to Piper Ranch Rd.	54,000	45	100	90	3	2	78.00	8.00	14.00
103	Otay Mesa Road	Piper Ranch Rd. to SR-125	28,500	45	100	90	3	2	78.00	8.00	14.00
104	Otay Mesa Road	SR-125 to Harves t Rd.	36,000	45	100	90	3	2	78.00	8.00	14.00
105	Otay Mesa Road	Harvest Rd. to Sanyo Ave.	32,000	45	100	90	3	2	78.00	8.00	14.00
106	Otay Mesa Road	Sanyo Ave. to Enrico Fermi Dr.	7,500	40	100	90	3	2	78.00	8.00	14.00
107	Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	4,500	45	100	90	3	2	78.00	8.00	14.00
108	Palm Ave.	Piccard Ave to I-805	1	35	100	90	3	2	78.00	8.00	14.00
109	Palm Ave.	I-805 to Dennery Rd.	59,500	45	100	90	3	2	78.00	8.00	14.00
110	Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	16,500	35	100	90	3	2	78.00	8.00	14.00
111	Paseo de las Americas	Siempre Viva Rd. to Marconi Dr.	15,000	35	100	90	3	2	78.00	8.00	14.00
112	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	20,500	40	100	90	3	2	78.00	8.00	14.00
113	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	20,500	40	100	90	3	2	78.00	8.00	14.00
114	Progressive Avenue	Corporate Center Dr. to Innovative Dr.	11,500	30	100	90	3	2	78.00	8.00	14.00
115	Sanyo Avevue	Otay Mesa Rd. to Airway Rd.	24,500	45	100	90	3	2	78.00	8.00	14.00
116	Siempre Viva Rd.	Cactus Rd. to Britannia Blvd.	37,000	40	100	90	3	2	78.00	8.00	14.00
117	Siempre Viva Rd.	Britannia Blvd. to La Media Rd.	42,500	40	100	90	3	2	78.00	8.00	14.00
118	Siempre Viva Rd.	La Media Rd. to Harves t Rd.	40,500	40	100	90	3	2	78.00	8.00	14.00
119	Siempre Viva Rd.	Harves t Rd. to Otay Center Dr.	34,000	40	100	90	3	2	78.00	8.00	14.00
120	Siempre Viva Rd.	Otay Center Dr. to SR-905	60,000	40	100	90	3	2	78.00	8.00	14.00
121	Siempre Viva Rd.	SR-905 to Paseo de las Americas	63,000	40	100	90	3	2	78.00	8.00	14.00
122	Siempre Viva Rd.	Paseo de las Americas to Michael Faraday Dr.	23,000	40	100	90	3	2	78.00	8.00	14.00
123	Siempre Viva Rd.	Michael Faraday Dr. to Enrico Fermi Dr.	21,000	40	100	90	3	2	78.00	8.00	14.00
124	Siempre Viva Rd.	Enrico Fermi Dr. to SR-11*	17,500	40	100	90	3	2	78.00	8.00	14.00
125	Siempre Viva Rd.	Caliente Ave. to West Terminus	10,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
126	Siempre Viva Rd.	Heritage Rd. to Cactus Rd.	1	65	100	91.9	5.5	2.6	78.00	8.00	14.00
127	SR-11	SR-905 to Enrico Fermi Dr.	47,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
128	SR-11	Enrico Fermi Dr. to Siempre Viva Rd	24,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
129	SR-11	Siempre Viva Rd. to Border	39,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
130	SR-125	Birch Rd. to Lone Star Rd.	155,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
131	SR-125	Lone Star Rd. to SR-905	115,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
132	SR-905	Picador Blvd. to I-805	128,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
133	SR-905	I-805 to Caliente Ave.	221,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
134	SR-905	Caliente Ave. to Heritage Rd.	196,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
135	SR-905	Heritage Rd. to Britannia Blvd.	173,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
136	SR-905	Britannia Blvd. to La Media Rd.	154,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
137	SR-905	La Media Rd. to SR-125	103,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
138	SR-905	SR-125 to Siempre Viva Rd.	99,000	65	100	91.9	5.5	2.6	78.00	8.00	14.00
139	SR-905	Siempre Viva Rd. to Border	64,500	65	100	91.9	5.5	2.6	78.00	8.00	14.00
140	St. Andrews Avenue	Otay Mesa Center Rd. to La Media Rd.	13,500	30	100	90	3	2	78.00	8.00	14.00
141	Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	13,500	40	100	90	3	2	78.00	8.00	14.00

FHWA RD-77-108
Traffic Noise Prediction Model
Predicted Noise Levels

Project Name : OMCPU
Project Number : 3957.1
Modeled Condition : Proposed
Assessment Metric: Soft

Segment	Roadway	Segment From/To	Noise Levels, dBA Soft				Distance to Traffic Noise Level Contours, Feet				
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB
1	Airway Road	Old Otay Mesa Rd. to Caliente Ave.	63.0	57.2	60.2	66	23	50	109	234	504
2	Airway Road	Caliente Ave. to Heritage Rd.	68.6	62.8	65.8	71	55	119	256	552	1,189
3	Airway Road	Heritage Rd. to Cactus Rd.	70.6	64.8	67.8	73	75	162	349	752	1,621
4	Airway Road	Cactus Rd. to Britannia Blvd.	69.3	63.4	66.5	72	61	132	285	613	1,321
5	Airway Road	Britannia Blvd. to La Media Rd.	68.2	62.4	65.5	71	52	113	242	522	1,125
6	Airway Road	La Media Rd. to Harvest Rd.	68.1	62.3	65.3	71	51	110	238	512	1,104
7	Airway Road	Harvest Rd. to Sanyo Ave.	67.0	61.2	64.3	70	43	93	201	434	935
8	Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	64.8	59.0	62.1	67	31	67	144	310	668
9	Otay Center Drive	Harvest Rd. to Siempre Viva Rd.	63.0	58.0	61.4	66	25	54	117	253	544
10	Airway Road	Michael Faraday Dr. to Enrico Fermi Dr.	63.6	57.8	60.8	66	26	55	119	256	551
11	Airway Road	Enrico Fermi Dr. to Siempre Viva Rd.	63.8	57.9	61.0	66	26	57	122	263	566
12	Avendia De Las Vistas	Otay Valley Rd. to Vis ta Santo Domingo	57.7	53.5	58.8	62	13	29	63	135	291
13	Avendia De Las Vistas	Vista Santo Domingo to Denney Rd.	62.1	57.9	63.3	66	27	58	124	267	576
14	Avenida Cos ta Azul	Otay Mesa Rd. to St. Andrews Ave.	63.9	58.8	62.3	67	29	62	134	289	624
15	Aviator Road	Heritage Rd. to La Media Rd.	67.9	61.4	64.1	70	47	101	217	468	1,007
16	Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	66.3	61.2	64.6	69	41	89	192	414	892
17	Beyer Boulevard	Old Otay Mesa Rd. to Caliente Ave.	69.2	62.7	65.4	71	57	123	265	571	1,229
18	Britannia Boulevard	Otay Mesa Rd. to SR-905	65.2	59.4	62.5	68	33	71	153	329	709
19	Britannia Boulevard	SR-905 to Airway Rd.	69.4	70.2	78.0	79	189	408	879	1,895	4,082
20	Britannia Boulevard	Airway Rd. to Siempre Viva Rd.	67.9	68.7	76.5	78	150	324	697	1,503	3,237
21	Britannia Boulevard	Siempre Viva Rd. to South End	64.8	65.6	73.4	75	94	202	436	940	2,024
22	Cactus Road	Otay Mesa Rd. to Airway Rd.	70.4	63.8	66.6	73	68	147	317	682	1,469
23	Cactus Road	Airway Rd. to Siempre Viva Rd.	70.4	63.8	66.6	73	68	147	317	682	1,469
24	Cactus Road	Siempre Viva Rd. to South End	64.7	58.2	60.9	67	29	62	133	286	616
25	Caliente Avenue	Otay Mesa Rd. to SR-905	65.0	60.8	66.2	69	42	90	194	417	898
26	Caliente Avenue	Otay Mesa Rd. to SR-905	65.0	60.8	66.2	69	42	90	194	417	898
27	Caliente Avenue	SR-905 to Airway Rd.	67.9	62.0	65.1	70	49	106	228	492	1,060
28	Caliente Avenue	Airway Rd. to Beyer Blvd.	69.4	63.6	66.7	72	63	135	291	627	1,350
29	Caliente Avenue	Beyer Blvd. to Siempre Viva Rd.	68.9	63.1	66.2	71	58	125	269	580	1,251
30	Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	59.0	54.8	60.2	63	17	36	77	165	357
31	Camino Maquiladora	Pacific Rim Ct. to Cactus Rd.	58.0	53.8	59.1	62	14	30	66	141	305
32	Camino Maquiladora	Cactus Rd. to Continental St.	57.0	52.8	58.2	61	12	26	57	122	262
33	Centurion Street	Airway Rd. to Gigantic St.	60.6	54.7	57.8	63	16	35	75	161	347
34	Continental Street	South of Otay Mesa Rd.	57.7	52.6	56.0	61	11	24	51	111	239
35	Continental Street	North of Airway Rd.	61.9	56.8	60.3	65	21	46	99	213	459
36	Corporate Center Drive	Progressive Ave. to Innovative Dr.	61.8	56.0	59.1	64	20	42	91	195	421
37	Corporate Center Drive	Otay Mesa Rd. to Progressive Ave.	65.7	59.9	62.9	68	35	76	164	354	762
38	Corporate Center Drive	South End to Otay Mesa Rd.	65.2	59.4	62.5	68	33	71	153	329	709
39	Datsun Street	Innovative Dr. to Heritage Rd.	69.1	62.5	65.3	71	56	120	259	558	1,203
40	Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	64.0	59.0	62.4	67	29	63	137	295	634

41	Del Sol Boulevard	Surf Cres t Dr. to Riviera Pointe	64.8	59.7	63.1	68	33	71	153	329	708
42	Del Sol Boulevard	Riviera Pointe to Dennery Rd.	64.8	59.7	63.1	68	33	71	153	329	708
43	Del Sol Boulevard	Dennery Rd. to I-805	63.2	58.1	61.5	66	26	56	120	258	556
44	Dennery Road	Palm Ave. to Del Sol Blvd.	65.6	60.5	64.0	69	37	81	174	375	808
45	Dennery Road	Palm Ave. to Regatta Ln.	64.0	59.0	62.4	67	29	63	137	295	634
46	Dennery Road	Regatta Ln. to Red Coral Ln.	62.1	57.0	60.5	65	22	47	102	219	472
47	Dennery Road	Red Coral Ln. to Black Coral Ln.	62.1	57.0	60.5	65	22	47	102	219	472
48	Dennery Road	Black Coral Ln. to Eas t End	63.3	58.2	61.7	66	26	57	122	263	568
49	Emerald Crest Dr.	Otay Mesa Rd. to South End	65.1	60.0	63.5	68	35	75	161	348	749
50	Enrico Fermi Drive	Siempre Viva Rd. to Via de la Amis tad	61.6	62.4	70.2	71	57	124	266	574	1,236
51	Enrico Fermi Drive	Airway Rd. to Siempre Viva Rd.	60.4	61.2	69.1	70	48	103	222	479	1,031
52	Enrico Fermi Drive	SR-11 to Airway Rd.*	63.3	64.1	71.9	73	74	160	345	744	1,603
53	Excellante Street	Airway Rd. to Gigantic St.	60.6	54.7	57.8	63	16	35	75	161	347
54	Exposition Way / Vista San	Avenida De Las Vistas to Corporate Dr.	62.1	57.0	60.5	65	22	47	102	219	472
55	Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	63.8	57.9	61.0	66	26	57	122	263	566
56	Gigantic Street	Excellante St. to Centurion St.	60.6	54.7	57.8	63	16	35	75	161	347
57	Harvest Road	Otay Center Dr. to Siempre Viva Rd.	62.8	57.0	60.0	65	23	49	105	227	488
58	Harvest Road	Airway Rd. to Otay Center Dr.	64.8	59.0	62.1	67	31	67	144	310	668
59	Harvest Road	South of Otay Mesa Rd.	62.1	56.3	59.3	65	20	44	94	203	438
60	Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	61.9	56.8	60.3	65	21	46	99	213	459
61	Heritage Road/Otay Valley	Main St. to Avenida De Las Vis tas	73.5	66.9	69.7	76	110	237	511	1,100	2,370
62	Heritage Road/Otay Valley	Avenida De Las Vis tas to Datsun St .	73.1	66.5	69.3	75	103	223	479	1,033	2,225
63	Heritage Road/Otay Valley	Datsun St. to Otay Mesa Rd.	71.1	64.6	67.3	73	76	165	354	764	1,645
64	Heritage Road/Otay Valley	Otay Mesa Rd. to SR-905	68.0	61.5	64.2	70	47	102	220	474	1,022
65	Heritage Road/Otay Valley	SR-905 to Airway Rd.	69.7	63.2	65.9	72	62	133	287	619	1,333
66	Heritage Road/Otay Valley	Main St. to Avenida De Las Vistas	24.3	17.8	20.5	26	0	0	0	1	1
67	Heritage Road/Otay Valley	Airway Rd. to Siempre Viva Rd.	24.3	17.8	20.5	26	0	0	0	1	1
68	I-805	Main St. to Palm Ave.	83.0	75.7	77.2	85	436	939	2,022	4,357	9,387
69	I-805	Palm Ave. to SR-905	82.5	75.2	76.7	84	405	872	1,878	4,047	8,719
70	I-805	SR-905 to I-5	79.9	72.6	74.1	82	272	585	1,260	2,715	5,850
71	I-805	I-5 to Border	80.3	73.0	74.6	82	291	627	1,352	2,912	6,274
72	Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	61.0	56.8	62.1	65	22	48	104	224	483
73	La Media Road	Lone Star Rd. to Aviator Rd.	65.8	65.9	73.4	75	95	206	443	955	2,057
74	La Media Road	Aviator Rd. to Otay Mesa Rd.	66.4	66.5	74.0	75	105	226	488	1,050	2,263
75	La Media Road	Otay Mesa Rd. to SR-905	68.6	68.7	76.2	78	148	318	685	1,477	3,181
76	La Media Road	SR-905 to Airway Rd.	69.5	70.3	78.1	79	191	412	889	1,915	4,125
77	La Media Road	Airway Rd. to Siempre Viva Rd.	66.6	67.4	75.2	76	123	265	571	1,231	2,652
78	La Media Road	Birch Rd. to Lone Star Rd.	21.4	22.2	30.0	31	0	0	1	1	3
79	Lone Star Road	La Media Rd. to SR-125	21.4	22.2	30.0	31	0	0	1	1	3
80	Lone Star Road	SR-125 to Piper Ranch Rd.	66.8	67.6	75.5	77	128	276	594	1,280	2,758
81	Lone Star Road	SR-125 to Piper Ranch Rd.	66.8	67.6	75.5	77	128	276	594	1,280	2,758
82	Lone Star Road	Piper Ranch Rd. to City / County Boundary	67.0	67.8	75.6	77	130	281	606	1,305	2,811
83	Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	60.2	55.1	58.5	63	16	35	75	163	350
84	Michael Faraday Drive	Airway Rd. to Siempre Viva Rd.	57.3	53.1	58.5	62	13	28	60	128	277
85	Michael Faraday Drive	Siempre Viva Rd. to Marconi Dr.	58.2	54.0	59.4	63	15	32	68	148	318
86	Ocean View Hills Pkwy	Dennery Rd. to Del Sol Blvd.	67.7	61.2	63.9	70	45	98	211	454	978
87	Ocean View Hills Pkwy	Del Sol Blvd. to Street "A"	68.2	62.4	65.5	71	52	113	242	522	1,125
88	Ocean View Hills Pkwy	Street "A" to Otay Mesa Rd.	66.5	60.7	63.7	69	40	86	186	401	863
89	Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	66.2	60.4	63.4	69	38	83	178	383	826
90	Old Otay Mesa Road	Airway Rd. to Crescent Bay Dr.	64.4	58.6	61.6	67	29	63	135	290	625
91	Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	64.8	59.0	62.1	67	31	67	144	310	668
92	Otay Center Drive	Harvest Rd. to Siempre Viva Rd.	63.0	58.0	61.4	66	25	54	117	253	544

93	Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	66.6	60.8	63.8	69	41	88	189	406	875
94	Otay Mesa Road	Street A to Caliente Ave.	68.4	61.9	64.6	71	51	109	236	507	1,093
95	Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	72.9	66.4	69.1	75	101	217	467	1,005	2,166
96	Otay Mesa Road	Corporate Center Dr. to Innovative Dr.	71.4	64.9	67.6	74	80	172	372	800	1,724
97	Otay Mesa Road	Innovative Dr. to Heritage Rd.	71.0	64.4	67.2	73	75	161	347	748	1,611
98	Otay Mesa Road	Heritage Rd. to Cactus Rd.	74.4	67.3	69.8	76	122	263	566	1,220	2,627
99	Otay Mesa Road	Cactus Rd. to Britannia Blvd.	72.0	64.9	67.4	74	84	182	391	843	1,817
100	Otay Mesa Road	Britannia Blvd. to Ailsa Ct.	72.6	65.5	67.9	74	92	199	429	925	1,992
101	Otay Mesa Road	Ailsa Ct. to La Media Rd.	71.9	64.8	67.2	74	82	178	383	824	1,776
102	Otay Mesa Road	La Media Rd. to Piper Ranch Rd.	71.6	65.1	67.8	74	83	178	383	826	1,780
103	Otay Mesa Road	Piper Ranch Rd. to SR-125	68.8	62.3	65.0	71	54	116	250	539	1,162
104	Otay Mesa Road	SR-125 to Harves t Rd.	69.8	63.3	66.1	72	63	136	293	630	1,358
105	Otay Mesa Road	Harvest Rd. to Sanyo Ave.	69.3	62.8	65.5	71	58	126	271	583	1,256
106	Otay Mesa Road	Sanyo Ave. to Enrico Fermi Dr.	61.6	55.7	58.8	64	19	40	87	187	403
107	Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	60.8	54.3	57.0	63	16	34	73	158	340
108	Palm Ave.	Piccard Ave to I-805	21.1	16.1	19.5	24	0	0	0	0	1
109	Palm Ave.	I-805 to Denney Rd.	72.0	65.5	68.2	74	88	190	409	881	1,899
110	Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	63.3	58.2	61.7	66	26	57	122	263	568
111	Paseo de las Americas	Siempre Viva Rd. to Marconi Dr.	62.9	57.8	61.3	66	25	53	115	247	533
112	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	65.9	60.1	63.1	68	37	79	170	366	788
113	Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	65.9	60.1	63.1	68	37	79	170	366	788
114	Progressive Avenue	Corporate Center Dr. to Innovative Dr.	59.8	55.6	61.0	64	19	40	87	188	405
115	Sanyo Avenue	Otay Mesa Rd. to Airway Rd.	68.2	61.7	64.4	70	49	105	226	488	1,051
116	Siempre Viva Rd.	Cactus Rd. to Britannia Blvd.	68.5	62.6	65.7	71	54	117	252	542	1,168
117	Siempre Viva Rd.	Britannia Blvd. to La Media Rd.	69.1	63.2	66.3	72	59	128	276	595	1,281
118	Siempre Viva Rd.	La Media Rd. to Harves t Rd.	68.9	63.0	66.1	71	58	124	267	576	1,240
119	Siempre Viva Rd.	Harves t Rd. to Otay Center Dr.	68.1	62.3	65.3	71	51	110	238	512	1,104
120	Siempre Viva Rd.	Otay Center Dr. to SR-905	70.6	64.7	67.8	73	75	161	347	748	1,612
121	Siempre Viva Rd.	SR-905 to Paseo de las Americas	70.8	65.0	68.0	73	77	167	359	773	1,665
122	Siempre Viva Rd.	Paseo de las Americas to Michael Faraday Dr.	66.4	60.6	63.6	69	39	85	183	395	851
123	Siempre Viva Rd.	Michael Faraday Dr. to Enrico Fermi Dr.	66.0	60.2	63.2	69	37	80	172	372	801
124	Siempre Viva Rd.	Enrico Fermi Dr. to SR-11*	65.2	59.4	62.5	68	33	71	153	329	709
125	Siempre Viva Rd.	Caliente Ave. to West Terminus	69.0	62.9	63.1	71	52	112	242	520	1,121
126	Siempre Viva Rd.	Heritage Rd. to Cactus Rd.	29.0	22.9	23.1	31	0	0	1	1	2
127	SR-11	SR-905 to Enrico Fermi Dr.	75.7	69.6	69.8	77	146	315	678	1,460	3,146
128	SR-11	Enrico Fermi Dr. to Siempre Viva Rd	72.9	66.8	67.0	75	95	204	439	946	2,038
129	SR-11	Siempre Viva Rd. to Border	74.9	68.8	69.1	77	130	280	604	1,301	2,802
130	SR-125	Birch Rd. to Lone Star Rd.	80.9	74.8	75.0	83	324	699	1,505	3,243	6,986
131	SR-125	Lone Star Rd. to SR-905	79.6	73.5	73.7	81	266	573	1,234	2,659	5,730
132	SR-905	Picador Blvd. to I-805	80.1	74.0	74.2	82	286	615	1,325	2,855	6,152
133	SR-905	I-805 to Caliente Ave.	82.4	76.3	76.5	84	410	883	1,903	4,099	8,831
134	SR-905	Caliente Ave. to Heritage Rd.	81.9	75.8	76.0	84	378	815	1,756	3,784	8,152
135	SR-905	Heritage Rd. to Britannia Blvd.	81.4	75.3	75.5	83	348	750	1,616	3,482	7,501
136	SR-905	Britannia Blvd. to La Media Rd.	80.8	74.8	75.0	83	322	694	1,495	3,222	6,941
137	SR-905	La Media Rd. to SR-125	79.1	73.0	73.3	81	247	533	1,147	2,472	5,326
138	SR-905	SR-125 to Siempre Viva Rd.	78.9	72.8	73.1	81	240	517	1,114	2,400	5,170
139	SR-905	Siempre Viva Rd. to Border	77.1	71.0	71.2	79	180	389	837	1,803	3,885
140	St. Andrews Avenue	Otay Mesa Center Rd. to La Media Rd.	60.5	56.3	61.7	65	21	45	97	209	451
141	Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	64.1	58.3	61.3	67	28	60	128	277	596

APPENDIX J

Transportation Analysis

TRANSPORTATION ANALYSIS

For

OTAY MESA COMMUNITY PLAN UPDATE

Prepared for

THE CITY OF SAN DIEGO

Final Report, June 14, 2012
[with corrections dated August 30, 2013](#)
[on four pages \(ES-21, ES-38, ES-67, and 5-32\).](#)

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APPENDICES

- A. Existing Conditions
- B. Adopted Community Plan
- C. Scenario 3B With La Media Road
- D. Scenario 3B Without La Media Road

ES. EXECUTIVE SUMMARY

In support of the Otay Mesa Community Plan Update, this traffic study was prepared to evaluate existing and future traffic conditions at buildout of the community for three scenarios, the Adopted Community Plan, Scenario 3B With La Media Road, and Scenario 3B Without La Media Road.

No Project Scenario / Adopted Community Plan: The adopted Otay Mesa Community Plan concentrates residential development in the western third of Otay Mesa with industrial and commercial uses planned for the central and eastern portions of the community. The original 1981 land use map anticipated the development of 18,200 dwelling units in Otay Mesa. However, a 1997 community plan amendment to incorporate the Multiple Species Conservation Program (MSCP) reduced the potential residential build-out units resulting in 12,206 dwelling units currently being anticipated by the Otay Mesa Community Plan. The traffic forecast for this alternate assumed 5,776,000 square feet of commercial uses and 64,465,000 square feet of industrial uses. The buildout of this plan would generate a total of 1,165,103 average daily vehicle trips.

Land Use Scenario 3B With La Media Road: Approximately 18,774 dwelling units could be developed under this plan by increasing the housing unit yield in the southwestern residential areas, creating Community Villages south of Airway Road, west of Cactus Road and in an area south of SR-905 and west of Britannia Boulevard. This plan would retain industrial and commercial uses between Otay Mesa Road and SR-905. A cross border facility is included in this plan. The traffic forecast for this alternative assumed 3,917,000 square feet of commercial uses and 54,461,000 square feet of industrial uses. The buildout of this plan would generate 1,045,025 average daily vehicle trips.

The City of Chula Vista is preparing a General Plan Amendment, anticipated in Spring 2012, that would delete the La Media Road bridge crossing the Otay River Valley from their General Plan, and has deleted this project from their facilities financing plan. Therefore, the “With La Media Road” connection to Chula Vista appears to no longer be a viable alternative. For this reason, the detailed analysis provided in Chapter 6 for the 3B With La Media Road alternative is not summarized here in the Executive Summary.

Land Use Scenario 3B Without La Media Road – Proposed Community Plan Buildout: The Adopted Community Plan includes the extension of La Media Road north of Lone Star Road to cross the Otay River Valley on a bridge. However, the City of Chula Vista has indicated that they will be deleting this crossing from their General Plan Circulation Element. The Scenario 3B land use assumptions remain unchanged, but the segment of La Media Road crossing the Otay River Valley has been deleted for this analysis. Approximately 18,774 dwelling units could be developed under this plan. The buildout of this plan would generate 1,045,025 average daily vehicle trips.

For buildout conditions this study evaluated 121 roadway segments, 17 freeway segments, 53 intersections, 14 freeway on-ramp meters, and queuing at 31 freeway interchange intersections.

I. EXISTING CONDITIONS

The existing Otay Mesa Community Plan land uses are only partially built out and the future street network is incomplete. The future SR-905 freeway is partially built and was opened to traffic in December 2010 from Britannia Boulevard to the international border, but has not yet been fully constructed from I-805 to Britannia Boulevard. The existing conditions analysis is based on data collected before SR-905 was opened to traffic from Britannia Boulevard to the international border.

Roadway Segments

Provided below is a summary of existing conditions on roadway segments that are operating at unacceptable levels of service “E” or “F”.

- Otay Mesa Road (SR-905 to Caliente Avenue) LOS F;
- Otay Mesa Road (Caliente Avenue to Corporate Center Drive) LOS F;
- Otay Mesa Road (Corporate Center Drive to Heritage Road) LOS E;
- Otay Mesa Road (Otay Mesa Center Road to La Media Road) LOS E;
- Otay Valley Road (Main Street to Avenida De Las Vistas) LOS F;
- Otay Valley Road / Heritage Road (Avenida De Las Vistas to Otay Mesa Road) LOS F;
- La Media Road (Airway Road to Siempre Viva Road) LOS F.

All other roadway segments evaluated operate acceptably, at levels of service better than “E” or “F”.

Freeway Segments

All study area freeway segments of Interstate I-805 and SR-905 operate acceptably.

Intersections

The following intersection currently operates unacceptably.

- Otay Mesa Road / Heritage Road – LOS E during AM peak hour.

Ramp Meters

Currently, the I-805 / Palm Avenue and the SR-905 / Siempre Viva Road interchange ramps do not have ramp meters installed. The other interchanges evaluated in the buildout scenarios did not exist at the time of existing traffic counts.

Freeway Interchange Queues

Freeway interchange intersection queues were not evaluated for existing conditions.

II. NO PROJECT SCENARIO / ADOPTED COMMUNITY PLAN BUILDOUT

Roadway Segments

Roadway segments at buildout were evaluated for levels of service based on the City of San Diego Street Design manual. The initial “without mitigation” classification of roadways is based on the existing functional classifications or the current Community Plan classification if the street did not exist in the existing conditions assessment or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing-sized facility due to its capacity. Segments that would be at level of service “E” or “F” are considered to be significantly impacted by implementation of the land use plan. **Table ES II-1** lists segments that would be at level of service “E” or “F”, without reclassification and construction to a higher standard, and the level of service after reclassification and construction to a higher standard.

TABLE ES II-1
Buildout Adopted Community Plan
Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS	New Class	New LOS	S?
Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	78,000	F	N	-	Y
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	74,000	F	N	-	Y
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	58,500	E	N	-	Y
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	49,500	E	6-PA	C	N
	SR-125 to Harvest Rd.	11	4-M	40,000	42,500	F	6-PA	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	38,500	E	6-PA	C	N
Airway Road	Caliente Ave. to Heritage Rd.	15	4-M	40,000	59,000	F	6-PA	E	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	39,500	E	6-M	C	N
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	46,500	F	6-M	E	Y
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	39,000	E	6-M	C	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	54,500	F	6-M	F	Y
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	49,500	F	6-M	E	Y
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	4-M	40,000	47,000	F	N	-	Y
	Otay Center Dr. to SR-905	31	6-PA	60,000	64,500	F	N	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	72,000	F	N	-	Y
Palm Avenue	I-805 to Dennery Rd.	37	7-PA	65,000	69,500	F	N	-	Y
Caliente Avenue	Airway Rd. to Siempre Viva Rd.	43	4-M	40,000	48,000	F	6-M	E	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	87,000	F	N	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	77,500	F	6-PA	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	47,500	E	6-PA	C	N
	SR-905 to Airway Rd.	50	6-M	50,000	52,000	F	6-PA	D	N
	Airway Rd. to Siempre Viva Rd.	51	6-M	50,000	58,000	F	6-PA	E	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	35,000	F	4-M	D	N
	Siempre Viva Rd. to South End	54	4-CL	30,000	29,500	E	N	-	Y
Britannia Boulevard	SR-905 to Airway Rd.	56	4-M	40,000	52,000	F	6-PA	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	32,500	F	4-M	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	93,000	F	N	-	Y
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	64,500	F	N	-	Y
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	64,500	F	N	-	Y
	SR-905 to Airway Rd.	63	6-PA	60,000	75,500	E	N	-	Y
Harvest Road	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	38,000	E	N	-	Y

= Segment Number

**Segment is in Chula Vista

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N). - Shading indicates a significant impact.

N = New Classification is not proposed.

New LOS = LOS after change in classification.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

TABLE ES II-1

Buildout Adopted Community Plan

Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS	New Class	New LOS	S?
Lone Star Road	La Media Rd. to SR-125	71	4-M	40,000	38,000	E	6-PA	C	N
	SR-125 to Piper Ranch Rd.	72	4-M	40,000	55,000	F	6-PA	D	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	54,500	F	6-PA	D	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	15,500	F	4-CL	C	N
Dennery Road	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	15,000	E	N	-	Y
	Black Coral Ln. to East End	79	2-CN	10,000	21,500	F	N	-	Y
Avenida De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	25,000	F	N	-	Y
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	26,000	F	N	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	26,000	F	N	-	Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	21,500	F	N	-	Y
Corporate Center Drive	Progressive Ave. to Innovative Dr.	93	2-C	8,000	13,000	F	2-CL	D	N
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	43,000	F	4-M	F	Y
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	27,000	F	N	-	Y
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	33,500	F	4-M	D	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	16,000	F	4-CL	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	16,500	F	2-CL	F	Y
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	14,000	E	4-CL	B	N
St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	105	2-C	8,000	20,500	F	4-CL	D	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	9,000	F	4-C	C	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	7,500	E	N	-	Y
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	17,000	F	N	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	36,500	F	4-M	E	Y
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	31,000	F	4-CL	F	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.(3)	115	2-CL	15,000	18,000	F	4-CL	C	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	19,500	F	N	-	Y
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	19,500	F	N	-	Y
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	18,500	F	N	-	Y
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (3) (4)	119	2-CN	10,000	17,000	F	N	-	Y

= Segment Number

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N). - Shading indicates a significant impact.

N = New classification is not proposed.

New LOS = LOS after change in classification.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

As shown in this table 59 roadway segments would operate at level of service “E” or “F” with the assumed initial classification or “without mitigation”. After reclassification and construction to a higher standard, 38 segments would operate at “E” or “F” and remain significantly impacted, as indicated with a “Y” in the last column with the (S?) heading.

Figure ES II-1 shows recommended roadway classifications and also segments highlighted in red that are proposed to be classified to a higher standard.

Refer to Chapter 5, page 5-11 for the discussion of the proposed mitigations and / or explanation of why the significant impact is not proposed to be fully mitigated.

A comparison of the Buildout Adopted Community Plan significantly impacted roadway segments to the 3B Without La Media Road Scenario is provided below, based on the listing of impacted roadway segments shown in **Table ES II-2**.

The Adopted Community Plan Scenario has 38 roadway segments that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario would have 24 roadway segments that would remain significantly impacted after mitigation.

The following 19 roadway segments would remain significantly impacted under both scenarios.

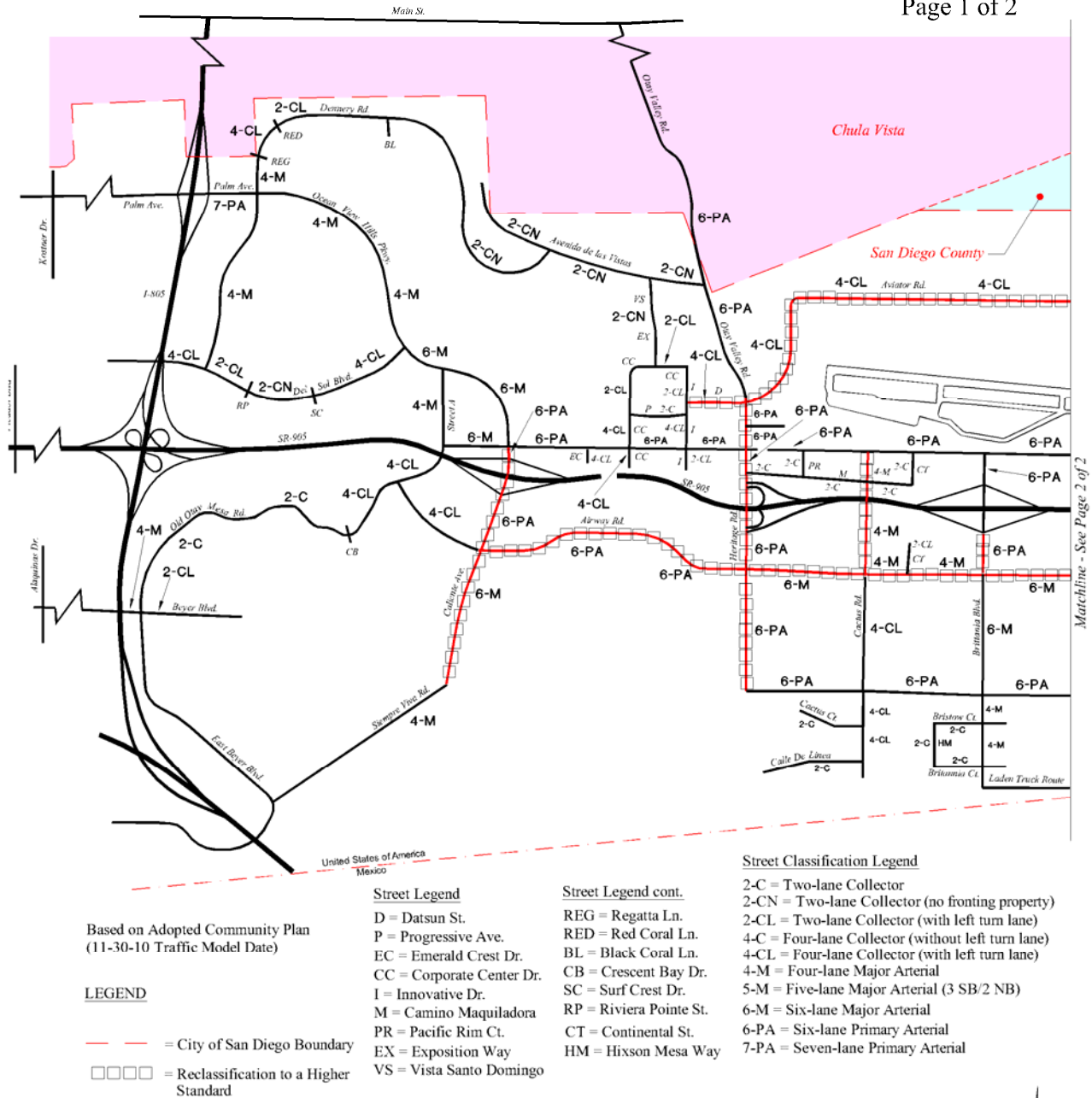


FIGURE ES - II -1
Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)



FIGURE ES - II -1

Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)



TABLE ES II-2
Comparison Of
Buildout Adopted Community Plan To
3B Without La Media Road Scenario
Roadway Segment Significant Impacts After Mitigation

Street	Segment	#	ACP (1) S?	3B W/Out La Media (2) S?
Otay Mesa	Caliente Ave. to Corporate Center Dr.	2	Y	Y
	Heritage Rd. to Cactus Rd.	5	Y	Y
	Britannia Blvd. to Ailsa Ct.	7	Y	N
Airway Road	Caliente Ave. to Heritage Rd.	15	Y	Y
	Heritage Rd. to Cactus Rd.	16	N	Y
	Cactus Rd. to Britannia Blvd.	17	Y	N
	La Media Rd. to Harvest Rd.	19	Y	N
	Harvest Rd. to Sanyo Ave.	20	Y	N
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	Y	N
	Otay Center Dr. to SR-905	31	Y	Y
	SR-905 to Paseo de las Americas	32	Y	Y
Palm Avenue	I-805 to Dennery Rd.	37	Y	N
Caliente Avenue	Airway Rd. to Siempre Viva Rd.	43	Y	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	Y	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	Y	Y
	Avenida De Las Vistas to Datsun St.	47	Y	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	N	Y
	Airway Rd. to Siempre Viva Rd.	53	N	Y
	Siempre Viva Rd. to South End	54	Y	N
Britannia Boulevard	SR-905 to Airway Rd.	56	N	Y
La Media Road	Birch Rd. to Lone Star Rd.**	59	Y	N
	Lone Star Rd. to Aviator Rd.	60	Y	N
	Aviator Rd. to Otay Mesa Rd.	61	Y	N
	SR-905 to Airway Rd.	63	Y	Y
Harvest Road	Otay Center Dr. to Siempre Viva Rd.	67	Y	N
Dennery Road	Red Coral Ln. to Black Coral Ln.	78	Y	N
	Black Coral Ln. to East End	79	Y	Y
Avenida De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	Y	Y
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	83	Y	Y
	Riviera Pointe to Dennery Rd.	84	Y	Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	Y	Y
Sanyo Avenue	Otay Mesa Rd. to Airway Rd.	97	Y	N
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	98	Y	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	Y	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	Y	Y
	Pacific Rim Ct. to Cactus Rd.	109	N	Y
Progressive Avennue	Corporate Center Dr. to Innovative Dr.	112	Y	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	Y	N
Datsun Street	Innovative Dr. to Heritage Rd.	114	Y	Y
Excellante Street	Airway Rd. to Gigantic St.	116	Y	N
Gigantic Street	Excellante St. to Centurion St.	117	Y	N
Centurion Street	Airway Rd. to Gigantic St.	118	Y	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr.	119	Y	Y

= Segment Number

** = Segment in Chula Vista.

S? = Significant impact, Yes (Y) or No (N).

(1) = Significant impact in the Adopted Community Plan Scenario.

(2) = Significant impact in the 3B Without La Media Road Scenario.

Y = Shading indicates a significant impact.

- Otay Mesa Road (Caliente Avenue to Corporate Center Drive);
- Otay Mesa Road (Heritage Road to Cactus Road);
- Airway Road (Caliente Avenue to Heritage Road);
- Siempre Viva Road (Otay Center Drive to SR-905)
- Siempre Viva Road / SR-905 to Paseo de las Americas);
- Caliente Avenue (Airway Road to Siempre Viva Road);
- Caliente Avenue (Beyer Boulevard to Siempre Viva Road);
- Heritage Road / Otay Valley Road (Main Street to Avenida de las Vistas);
- Heritage Road / Otay Valley Road (Avenida de las Vistas to Datsun Street);
- La Media Road (SR-905 to Airway Road);
- Dennery Road (Black Coral Lane to East End);
- Avenida de las Vistas (Vista Santo Domingo to Dennery Road);
- Del Sol Boulevard (Surf Crest Drive to Riviera Pointe);
- Del Sol Boulevard (Riviera Pointe to Dennery Road);
- Old Otay Mesa Road (Crescent Bay Drive to Airway Road);
- Camino Maquiladora (Heritage Road to Pacific Rim Court);
- Progressive Avenue (Corporate Center Drive to Innovative Drive);
- Datsun Street (Innovative Drive to Heritage Road);
- Exposition Way / Vista Santo Domingo (Avenida de las Vista to Corporate Center Drive).

The following 19 roadway segments would remain significantly impacted after mitigation in the Adopted Community Plan land use scenario, but not in the 3B Without La Media Road scenario:

- Otay Mesa Road (Britannia Boulevard to Ailsa Court);
- Airway Road (Cactus Road to Britannia Boulevard);
- Airway Road (La Media Road to Harvest Road);
- Airway Road (Harvest Road to Sanyo Avenue);
- Siempre Viva Road (Caliente Avenue to East Beyer Boulevard);
- Palm Avenue (I-805 to Dennery Road);
- Cactus Road (Siempre Viva Road to South End);
- La Media Road (Birch Road to Lone Star Road); (No segment in 3B Without La Media Road);
- La Media Road (Lone Star Road to Aviator Road);
- La Media Road (Aviator Road to Otay Mesa Road);
- Harvest Road (Otay Center Drive to Siempre Viva Road);
- Dennery Road (Red Coral Lane to Black Coral Lane);
- Sanyo Avenue (Otay Mesa Road to Airway Road)
- Heinrich Hertz Drive (Airway Road to Paseo de las Americas);
- Marconi Drive (Paseo de las Americas to Enrico Fermi Drive);
- Otay Mesa Center Road (Otay Mesa Road to St. Andrews Avenue);
- Excellante Street (Airway Road to Gigantic Street);
- Gigantic Street (Excellante Street to Centurion Street);
- Centurion Street (Airway Road to Gigantic Street).

The following roadway segments would remain significantly impacted after mitigation in the 3B Without La Media Road land use scenario but not in the Adopted Community Plan scenario.

- Airway Road (Heritage Road to Cactus Road);
- Cactus Road (Otay Mesa Road to Airway Road);
- Cactus Road (Airway Road to Siempre Viva Road);
- Britannia Boulevard (SR-905 to Airway Road);
- Camino Maquiladora (Pacific Rim Court to Cactus Road).

Figure ES II-2 shows the Adopted Community Plan land use scenario roadway segments that would remain at level of service “E” or “F” after mitigation.

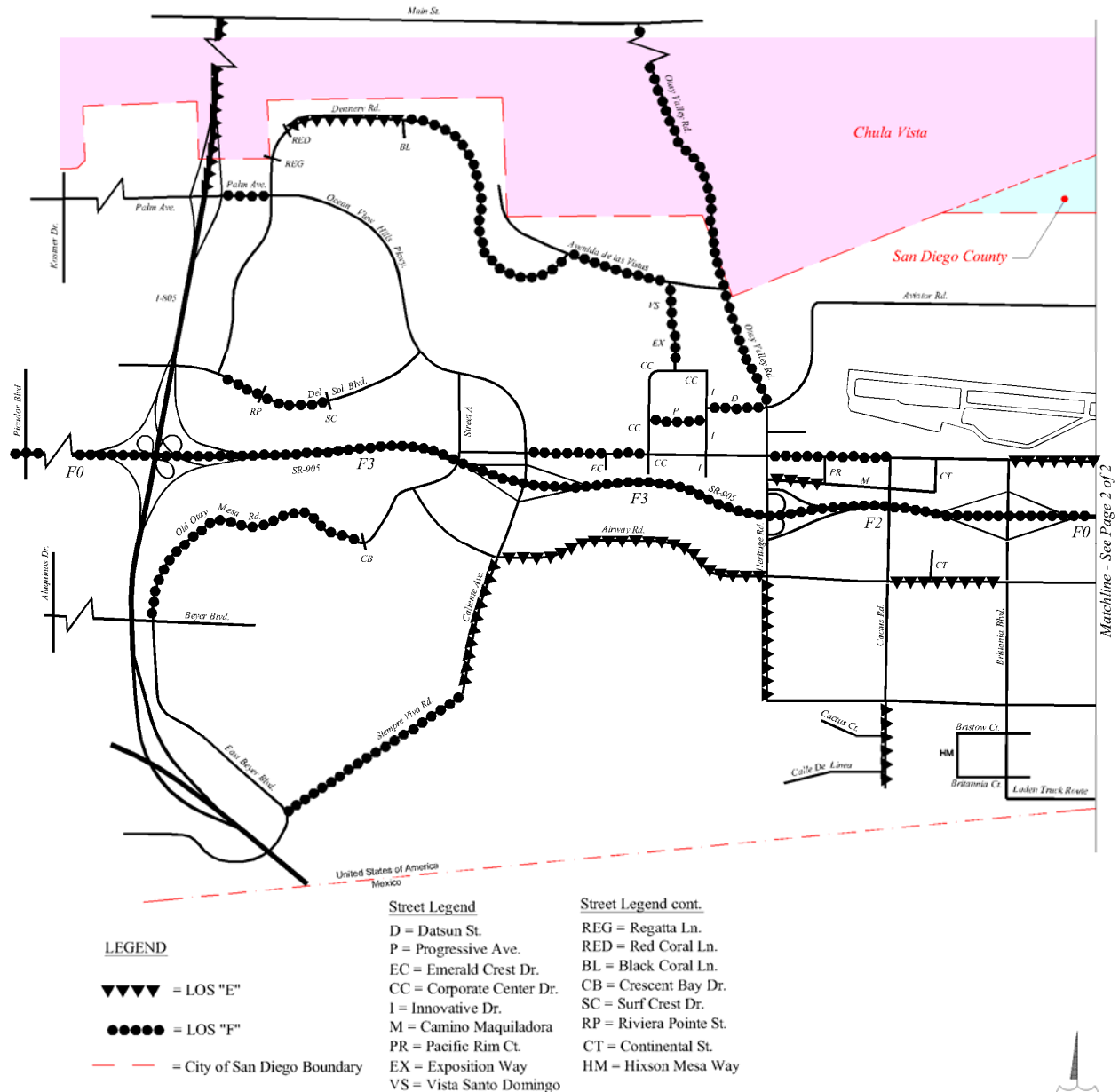

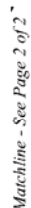


FIGURE ES - II - 2
Adopted Community Plan Land Use Scenario
Roadway Segments Remaining at LOS "E" or "F" After Mitigation



Freeway Segments

Table ES II-3 lists freeway segments evaluated for the “No Project” buildout Adopted Community Plan scenario.

Interstate 805

Segments of Interstate 805 north of State Route 905 are projected to be significantly impacted by buildout of the Adopted Otay Mesa Community Plan and regional cumulative traffic. With existing lanes and an additional northbound auxiliary lane currently being constructed between SR-905 and Palm Avenue, the segment of I-805 north of SR-905 are expected to be at level of service “F”. The Adopted SANDAG 2050 Regional Transportation Plan (RTP) includes two managed lanes on I-805 in each direction north of SR-905. With these additional lanes, the segment of I-805 between Main Street and Palm Avenue would be at level of service “E”. The segment between Palm Avenue and SR-905 would be at level of service “D” during peak hours.

Table ES II-4 shows freeway levels of service with HOV lanes added to segments at level of service “F”.

State Route 905 is assumed with six lanes and auxiliary lanes as is being constructed by Caltrans. Impacts would be significant and unmitigated between Picador Boulevard and La Media Road. State Route 905 has been designed so that median High Occupancy Vehicle (HOV) lanes could be installed in the future, but are not currently planned or funded by Caltrans or SANDAG. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service.

TABLE ES II-3

Buildout Adopted Community Plan Freeway Segment Levels of Service

	Segment	Lanes (1-Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	144,500	7,707	1.19	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,550	249,000	13,280	1.55	F3
	Caliente Ave. to Heritage Rd.	3	7,050	220,500	11,760	1.67	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	192,000	10,240	1.45	F2
	Britannia Blvd. to La Media Rd.	3	7,050	165,000	8,800	1.25	F0
	La Media Rd. to SR-125	3	7,050	119,500	6,373	0.90	D
	SR-125 to Siempre Viva Rd.	3	7,050	106,500	5,680	0.81	D
	Siempre Viva Rd. to Border	3	7,050	71,000	3,787	0.54	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	264,000	14,080	1.26	F1
	Palm Ave. to SR-905	4+AUX	11,200	234,500	12,507	1.12	F0
	SR-905 to I-5	4	9,400	119,000	6,347	0.68	C
	I-5 to Border	6	14,100	143,500	7,653	0.54	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	97,000	5,173	0.55	B
	Lone Star Rd. to SR-905	4 (Toll)	9,400	71,500	3,813	0.41	A
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	49,500	2,640	0.56	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	25,500	1,360	0.29	A
	Siempre Viva Rd. to Border	2	4,700	43,500	2,320	0.49	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service



= Shading indicates a significant impact.

Note:

- (1) Buildout Forecast Volume, Average Daily Traffic Volume (11-30-10 Run Date, Series 11)
- (2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3
- (3) = 2 Mainlanes + Auxillary Lane
- (4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

TABLE ES II-4

**Buildout Adopted Community Plan Freeway Segment Levels of Service
(With HOV Lanes Added To LOS F Segments)**

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	144,500	7,707	0.95	E
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	249,000	13,280	1.31	F1
	Caliente Ave. to Heritage Rd.	+H	3	8,650	220,500	11,760	1.36	F2
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	192,000	10,240	1.18	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	165,000	8,800	1.02	F0
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	264,000	14,080	0.98	E
	Palm Ave. to SR-905	+2H	4+AUX	14,400	234,500	12,507	0.87	D

Legend

Cap = Capacity of Segment

Mainlane Cap. @ 2,350 VPHPL

Auxillary Lane Cap. @ 1,800 VPHPL

HOV Lane Cap. @ 1,600 VPHPL

Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service



= Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (11-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane

WB: 3 Mainlanes + Auxillary Lane

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

A comparison of the Buildout Adopted Community Plan significantly impacted freeway segments to the 3B Without La Media Road Scenario is provided below, based on the listing of impacted freeway segments shown in **Table ES II-5**.

The Adopted Community Plan Scenario has six freeway segments that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario has three freeway segments that would remain significantly impacted after mitigation.

The following three freeway segments would remain significantly impacted under both scenarios:

- SR-905 (I-805 to Caliente Avenue);
- SR-905 (Caliente Avenue to Heritage Road);
- SR-905 (Heritage Road to Britannia Boulevard).

The following three freeway segments would remain significantly impacted under the Adopted Community Plan Scenario but not the 3B Without La Media Road Scenario:

- SR-905 (Picador Boulevard to I-805);
- SR-905 (Britannia Boulevard to La Media Road);
- I-805 (Main Street to Palm Avenue).

TABLE ES II-5

Comparison of

Buildout Community Plan to 3B Without La Media Road Scenario

Freeway Segment Significant Impacts After Mitigation

(With HOV Lanes Added)


Segment		ADD HOV	Lanes (1Way)	LOS (1)	LOS (2)
SR-905	Picador Blvd. to I-805	+H	2 + AUX	E	D
	I-805 to Caliente Ave.	+H	3 + CL	F1	F0
	Caliente Ave. to Heritage Rd.	+H	3	F2	F0
	Heritage Rd. to Britannia Blvd.	+H	3	F0	F0
	Britannia Blvd. to La Media Rd.	+H	3	F0	D
I-805	Main St. to Palm Ave.	+2H	4+AUX	E	D

Legend

LOS = Level of Service

(1) = Adopted Community Plan land use scenario.

(2) = 3B Without La Media Road land use scenario.

 = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

Intersections

Intersections projected to operate at level of service “E” or “F” are considered to be significantly impacted by implementation of the land use plan. **Table ES II-6** shows intersection levels of service. Of the 53 intersections evaluated at Buildout in the No Project / Adopted Community Plan scenario, four would be at level of service “E” and 42 would be at level of service “F” during the AM peak hour. During the PM peak hour, five would be at level of service “E” and 43 would be at level of service “F”. A total of 49 intersections would operate at level of service “E” or “F” during the morning and / or evening peak hour.

With proposed mitigation, two would be at level of service “E” and 33 would be at level of service “F” during the AM peak hour. During the PM peak hour, ~~five~~ six would be at level of service “E” and 31 would be at level of service “F”. With proposed mitigation, a total of ~~39~~ 40 intersections would operate at level of service “E” or “F” during the morning and / or evening peak hour.

Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a degraded level of service, as footnoted in this table.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. The Design Manual requires widening for an additional 10 feet at approaches to intersecting four or six lane streets for a two lane left turn, and this additional width is not considered mitigation. Therefore, dual left turns are to be assumed at all four or six lane major and primary arterials, before mitigation, unless a supporting traffic

TABLE ES II-6

Buildout Adopted Community Plan Intersection Levels of Service

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	64.8	E	111.7	F	36.6	D	71.5	E
2	Palm Ave. / I-805 NB Ramps	167.1	F	172.8	F	5.6	A	8.9	(1) A
3	Palm Ave. / Dennerly Rd.	36.0	D	69.4	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	359.8	F	201.6	F	236.3	F	102.0	F
5	Caliente Ave. / SR-905 WB Ramps	154.1	F	162.7	F	64.7	E	57.4	E
6	Caliente Ave. / SR-905 EB Ramps	225.9	F	214.7	F	92.9	F	56.8	E
7	Caliente Ave. / Airway Rd.	347.1	F	510.6	F	326.2	F	396.2	F
8	Caliente Ave. / Siempre Viva Rd.	86.4	F	82.0	F	-	-	-	-
9	Otay Mesa Rd. / Heritage Rd.	350.5	F	286.1	F	285.8	F	155.8	F
10	Heritage Rd. / SR-905 WB Ramps	36.8	(1) D	240.9	F	14.6	B	13.2	B
11	Heritage Rd. / SR-905 EB Ramps	64.3	E	127.7	F	50.4	(1) D	45.7	(1) D
12	Heritage Rd. / Airway Rd.	457.0	F	555.0	F	143.3	F	225.6	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	481.3	F	302.6	F	249.9	F	166.0	F
15	Airway Rd. / Cactus Rd.	212.3	F	319.4	F	115.2	F	100.7	F
16	Siempre Viva Rd. / Cactus Rd.	269.6	F	290.1	F	127.9	F	108.2	F
17	Otay Mesa Rd. / Britannia Blvd.	63.8	E	72.0	E	24.0	(1) C	54.1	(1) D
18	Britannia Blvd. / SR-905 WB Ramps	191.8	F	298.2	F	46.7	(1) D	187.9	F
19	Britannia Blvd. / SR-905 EB Ramps	290.0	F	283.7	F	276.0	F	124.5	F
20	Britannia Blvd. / Airway Rd.	453.3	F	490.5	F	218.1	F	206.7	F
21	Siempre Viva Rd. / Britannia Blvd.	502.4	F	494.6	F	208.2	F	302.3	F
22	Otay Mesa Rd. / La Media Rd.	484.5	F	495.7	F	148.3	F	128.0	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact

TABLE ES II-6 (Continued)

Buildout Adopted Community Plan Intersection Levels of Service

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
23	La Media Rd. / SR-905 WB Ramps	257.6	F	335.2	F	117.7	F	195.7	F
24	La Media Rd. / SR-905 EB Ramps	319.2	F	224.8	F	218.5	F	157.6	F
25	La Media Rd. / Airway Rd.	786.8	F	654.3	F	236.9	F	338.7	F
26	La Media Rd. / Siempre Viva Rd.	303.0	F	238.6	F	90.6	F	102.7	F
27	La Media Rd. / Lone Star Rd.	547.7	F	755.8	F	399.5	F	492.2	F
28	Lone Star Rd. / SR-125 SB Off Ramp	52.4	(1) D	14.4	(1) B	-	-	-	-
29	Lone Star Rd. / SR-125 NB On Ramp	3.3	(1) A	7.2	(1) A	-	-	-	-
30	Lone Star Rd. / Piper Ranch Rd.	67.5	E	15.4	B	43.2	D	15.2	B
31	Otay Mesa Rd. / Piper Ranch Rd.	274.0	F	284.6	F	89.7	F	165.7	F
32	Otay Mesa Rd. / SR-125 SB Off Ramp	40.2	(1) D	7.9	(1) A	16.5	(1) B	7.3	A
33	Otay Mesa Rd. / SR-125 NB On Ramp	3.3	(1) A	14.9	(1) B	-	-	-	-
34	Otay Mesa Rd. / Harvest Rd.	132.3	F	87.2	F	34.1	C	41.9	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	298.0	F	471.8	F	235.5	F	225.9	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	149.3	F	248.1	F	-	-	-	-
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 4,196	F	(2) 899.3	F	292.5	F	40.4	(1) D
37	Siempre Viva Rd. / SR-905 NB Ramps	150.8	F	431.7	F	144.1	F	355.8	F
38	Siempre Viva Rd. / Paseo de las Americas	648.7	F	751.1	F	352.0	F	430.7	F
39	Dennerly Rd. / Del Sol Blvd.	104.7	F	72.2	E	-	-	-	-
40	Ocean View Hills Pkwy. / Del Sol Blvd.	172.7	F	192.2	F	68.2	E	132.4	F
41	Ocean View Hills Pkwy. / Street A	162.6	F	258.4	F	49.8	D	51.9	D
42	Old Otay Mesa Rd. / Beyer Blvd.	623.1	F	638.2	F	47.7	D	46.0	D
43	Otay Mesa Rd. / Corporate Center Dr.	146.2	F	125.8	F	103.7	F	96.5	F
44	Otay Mesa Rd. / Innovative Dr.	96.4	F	64.8	E	82.8	F	36.2	D

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

(2) Unsignalized: SB to WB Right Turn at LOS F (AM and PM Peak Hours);

F = Shading indicates a significant impact.

TABLE ES II-6 (Continued)

Buildout Adopted Community Plan Intersection Levels of Service

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	41.1	D	238.9	F	38.1	D	101.5	F
46	Harvest Rd. / Siempre Viva Rd.	239.9	F	230.4	F	203.8	F	221.1	F
47	Otay Mesa Rd. / Sanyo Ave.	296.7	F	424.5	F	109.9	F	113.5	F
48	Airway Rd. / Sanyo Ave.	740.3	F	371.4	F	178.8	F	131.1	F
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 196.9	F	(3) 440.2	F	10.4	B	15.0	B
50	Paseo de las Americas / Marconi Dr.	(4) 57.8	F	(4) 268.1	F	4.6	A	60.6	E
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	531.8	F	676.7	F	181.3	F	290.3	F
52	Aviator Rd. / La Media Rd.	159.9	F	79.4	E	102.4	F	54.4	D
53	Otay Valley Rd. / Avenida De Las Vistas	850.4	F	361.8	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay values higher than two times the LOS E value of 80.0 seconds.

Legend

CD = Control Delay

LOS = Level of Service

(3) Unsignalized: Northbound Left, Eastbound Left and Right Turns at LOS F (AM and PM Peak Hours)

(4) Unsignalized: Southbound Left, Westbound Left Turns at LOS F (AM Peak Hour);

Westbound Right Turn at LOS F (PM Peak Hour).

For unsignalized intersections, LOS F is at greater than 50.0 seconds delay / vehicle.

F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
<i>Source: 2000 Highway Capacity Manual</i>	

study documents that a single left turn would be sufficient. Overlapping left-turn / right-turn phases are recommended at the high volume right turns during the traffic signal design stage.

Separate single or dual turn lanes at new intersections should be designed with appropriate right of way widths. At retrofit locations additional lanes have been reviewed for initial feasibility by on-site observations and aerial photography. In some cases additional right of way will be needed, but only during the design phase will the required widths be determined.

Improvements are recommended at the interchange ramps for SR-905 / Caliente Avenue, SR-905 / Future Heritage Road, SR-905 / Britannia Boulevard; SR-905 / La Media Rd.; SR-905 / Siempre Viva Road. Subsequent design requirements from Caltrans may change the recommended lane configurations.

All locations are signalized. Lane configurations with and without mitigation are shown in **Figure ES II-3**.

Figure ES II-4 shows graphically the intersection levels of service after mitigation.

Refer to Chapter 5, page 5-41 for discussion of the proposed mitigation and / or explanation of why the significant impact is not proposed to be fully mitigated.

A comparison of the Buildout Adopted Community Plan Scenario significantly impacted intersections after mitigation to the 3B Without La Media Road Scenario is provided below, based on the listing of remaining significantly impacted intersections shown in **Table ES II-7**.

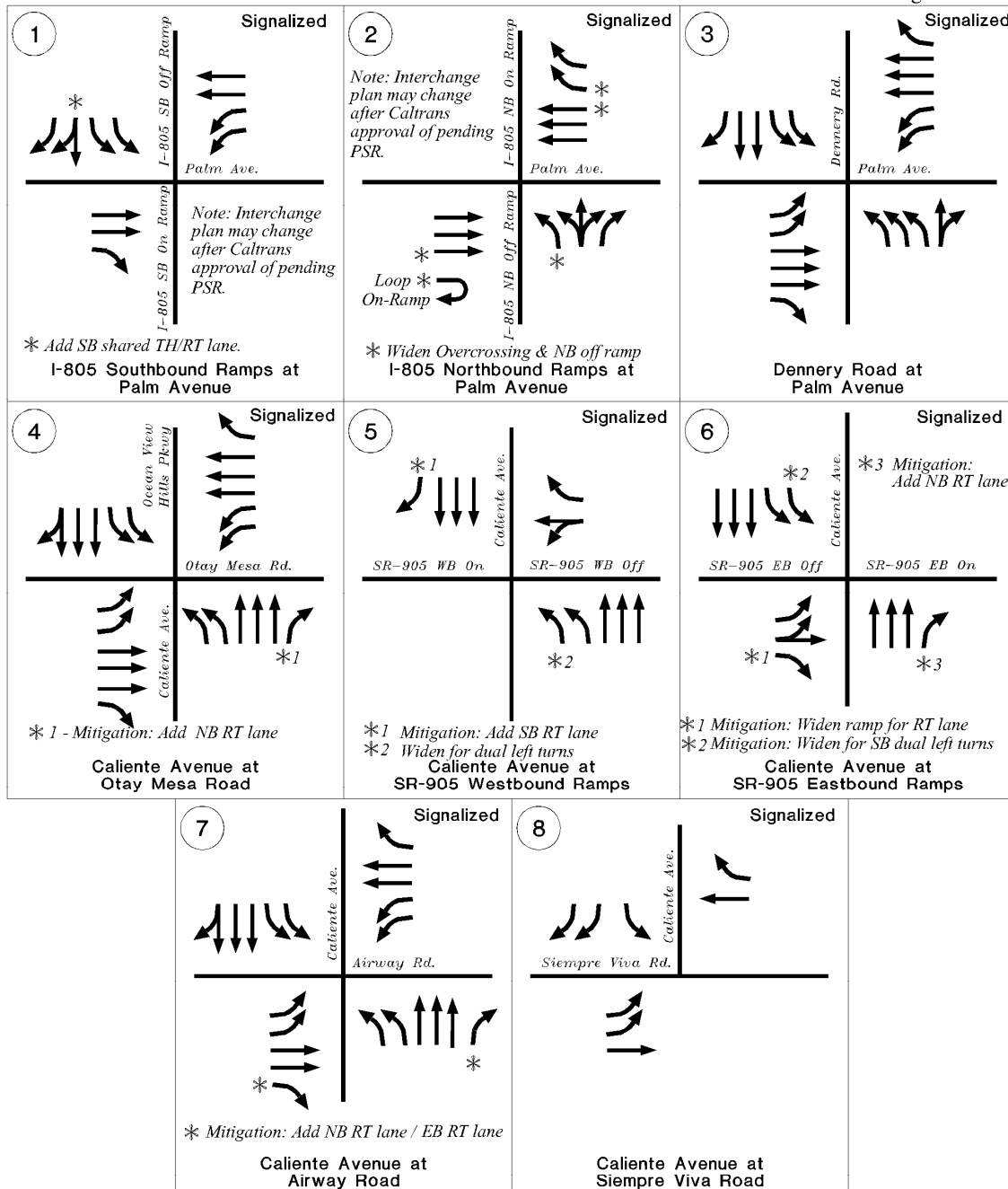


FIGURE ES-II-3
Buildout Recommended Lane Configurations - Adopted Community Plan
(With Mitigation)

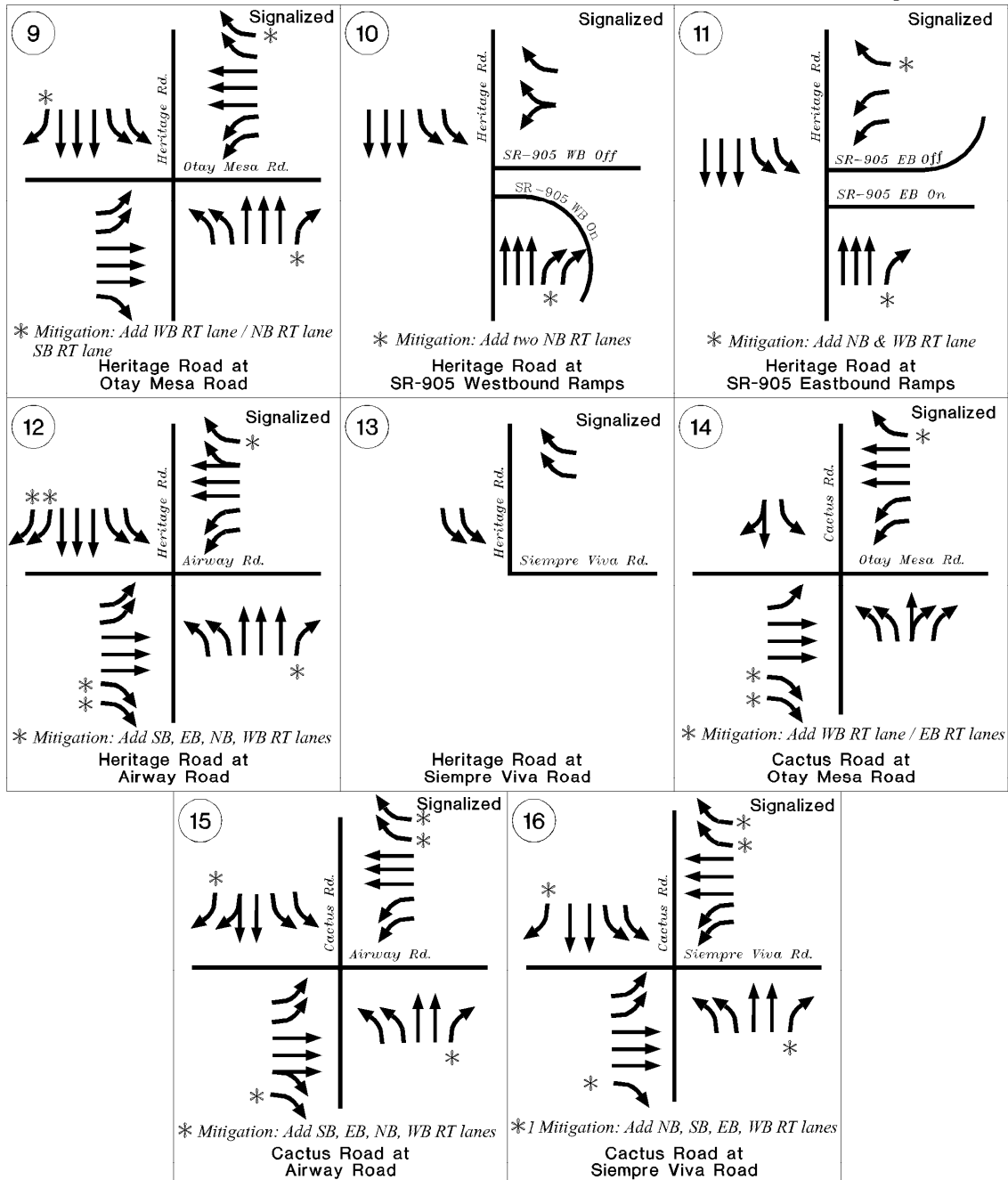


FIGURE ES-II-3
Buildout Recommended Lane Configurations - Adopted Community Plan
(With Mitigation)

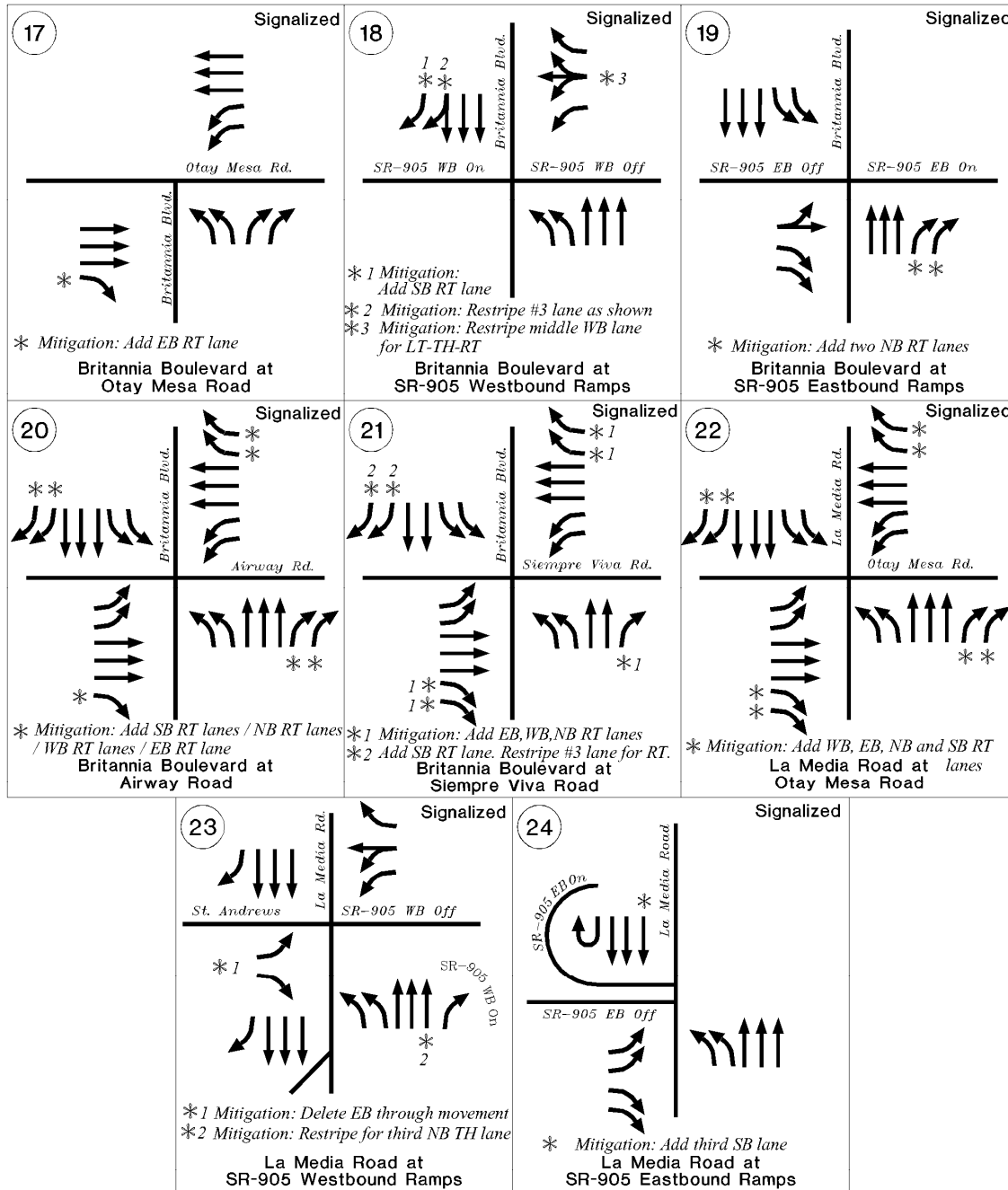


FIGURE ES-II-3
Buildout Recommended Lane Configurations - Adopted Community Plan
(With Mitigation)

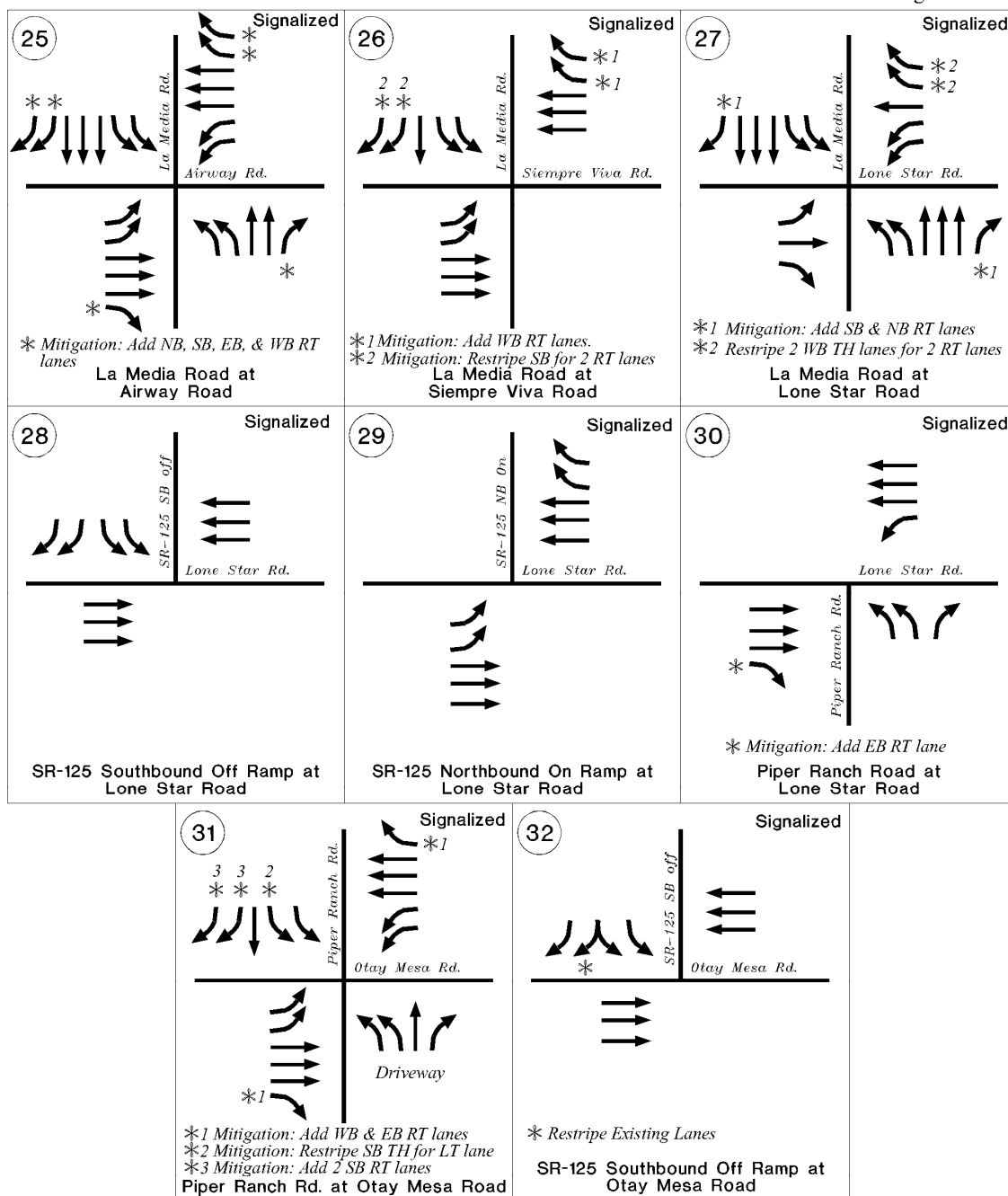


FIGURE ES-II-3
Buildout Recommended Lane Configurations - Adopted Community Plan
(With Mitigation)

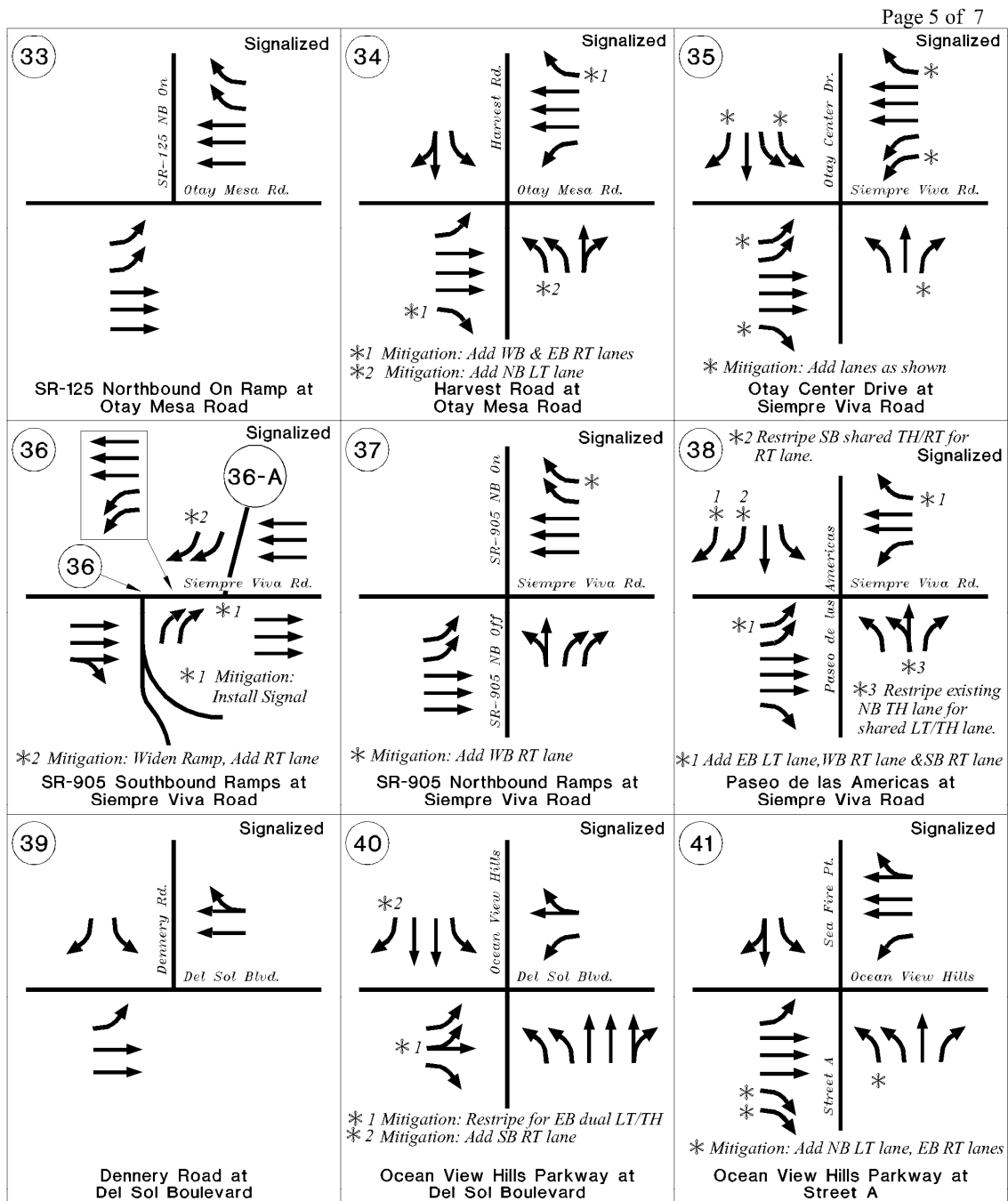


FIGURE ES-II-3
Buildout Recommended Lane Configurations - Adopted Community Plan
(With Mitigation)

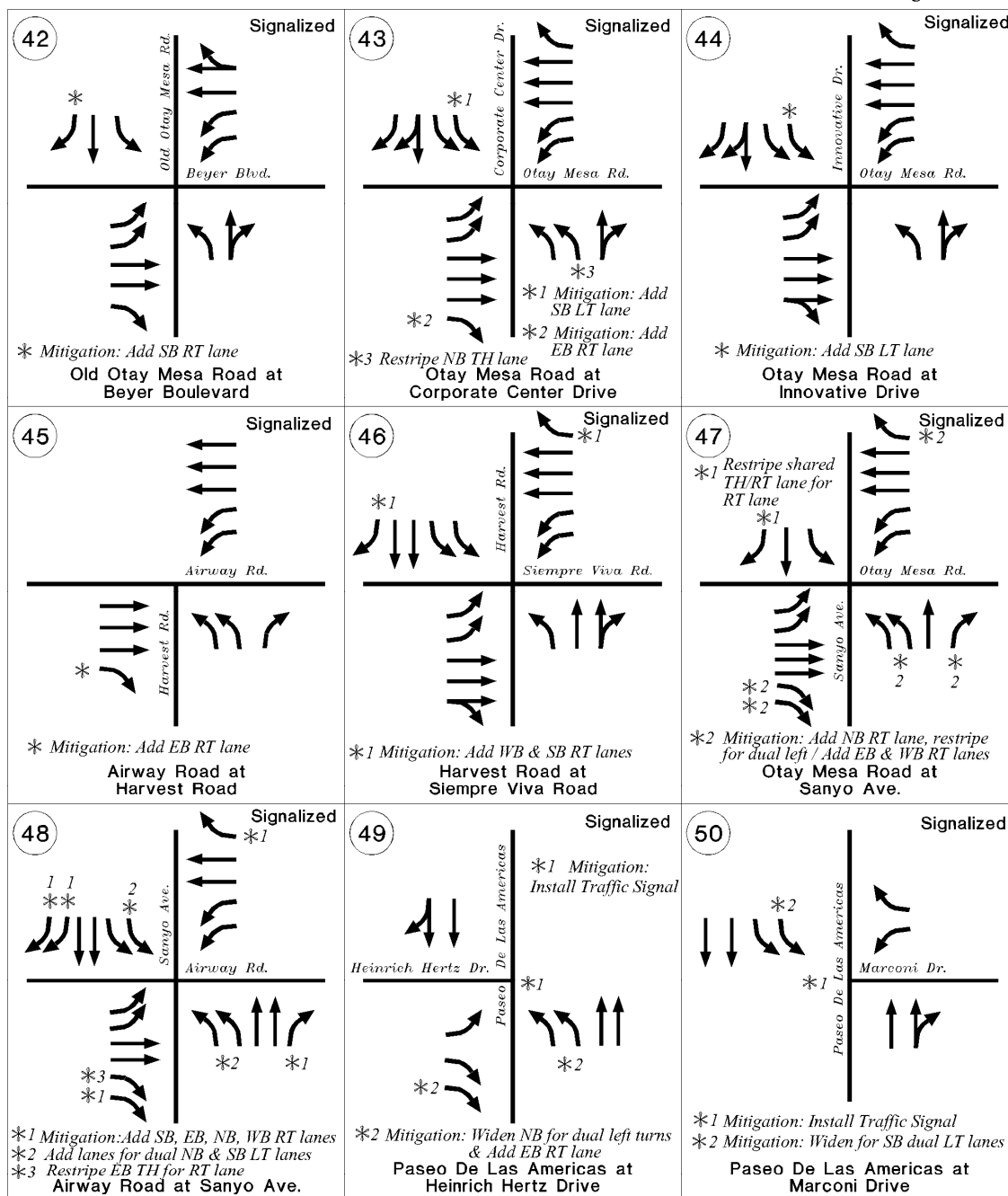


FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

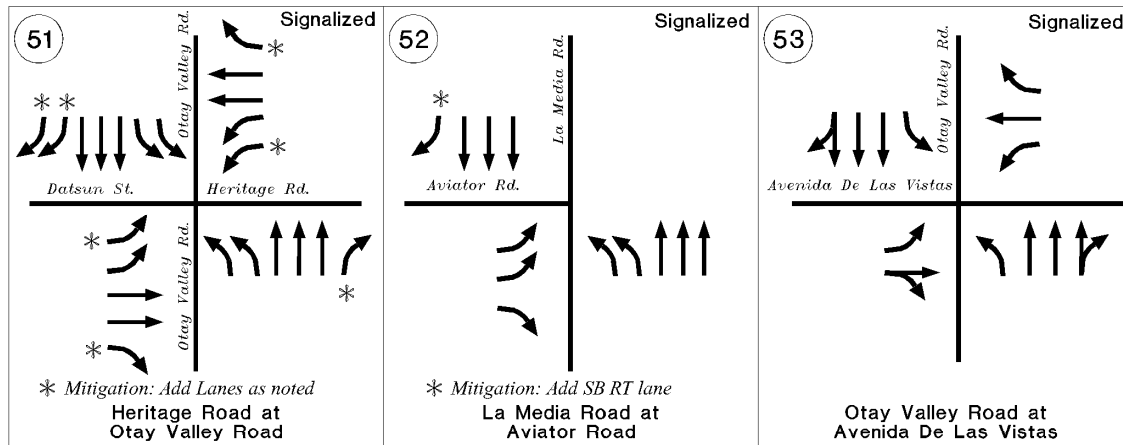


FIGURE ES-II-3
Buildout Recommended Lane Configurations - Adopted Community Plan
(With Mitigation)

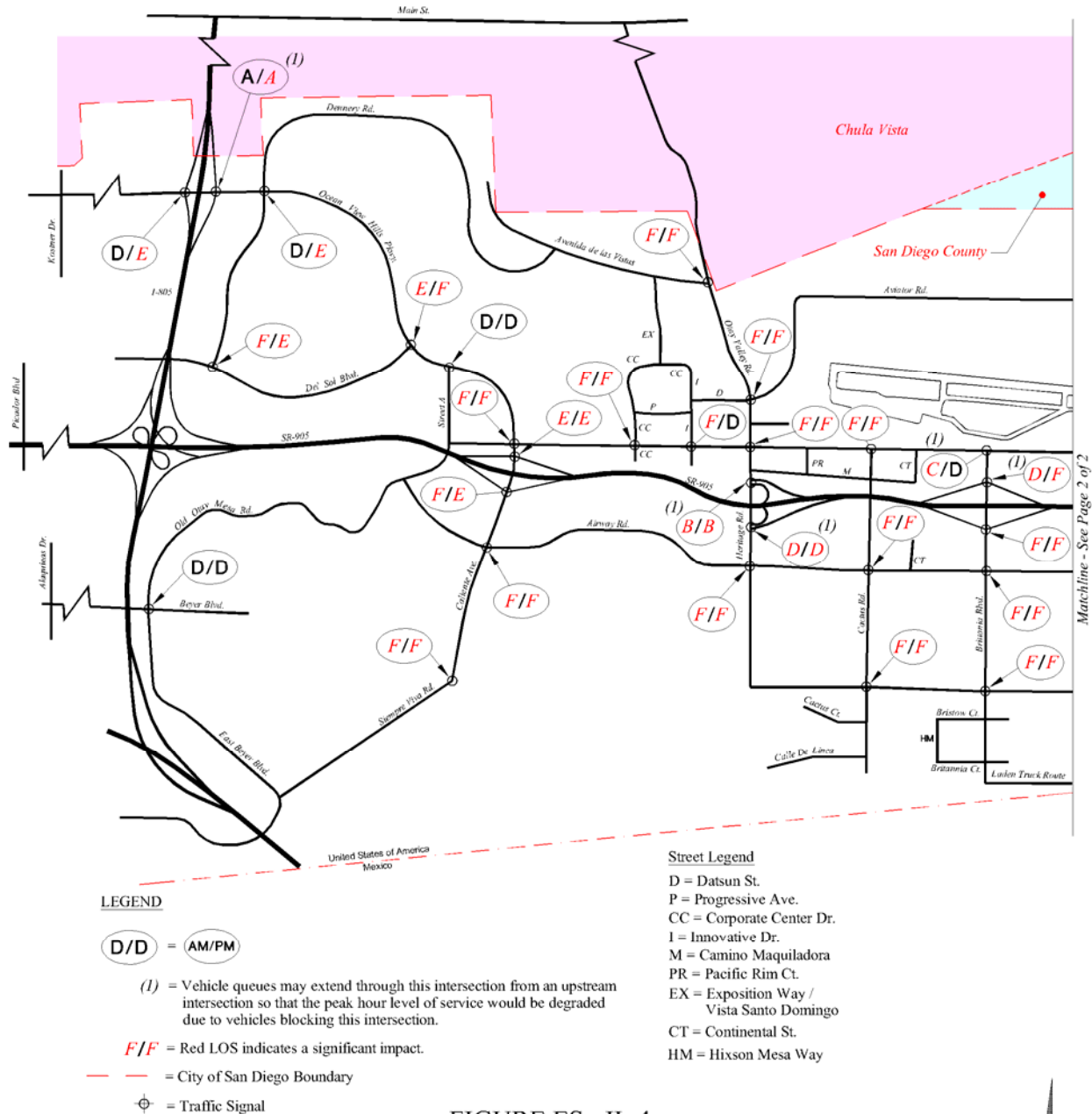


FIGURE ES - II -4
Adopted Community Plan
Intersection Levels of Service (With Mitigation)



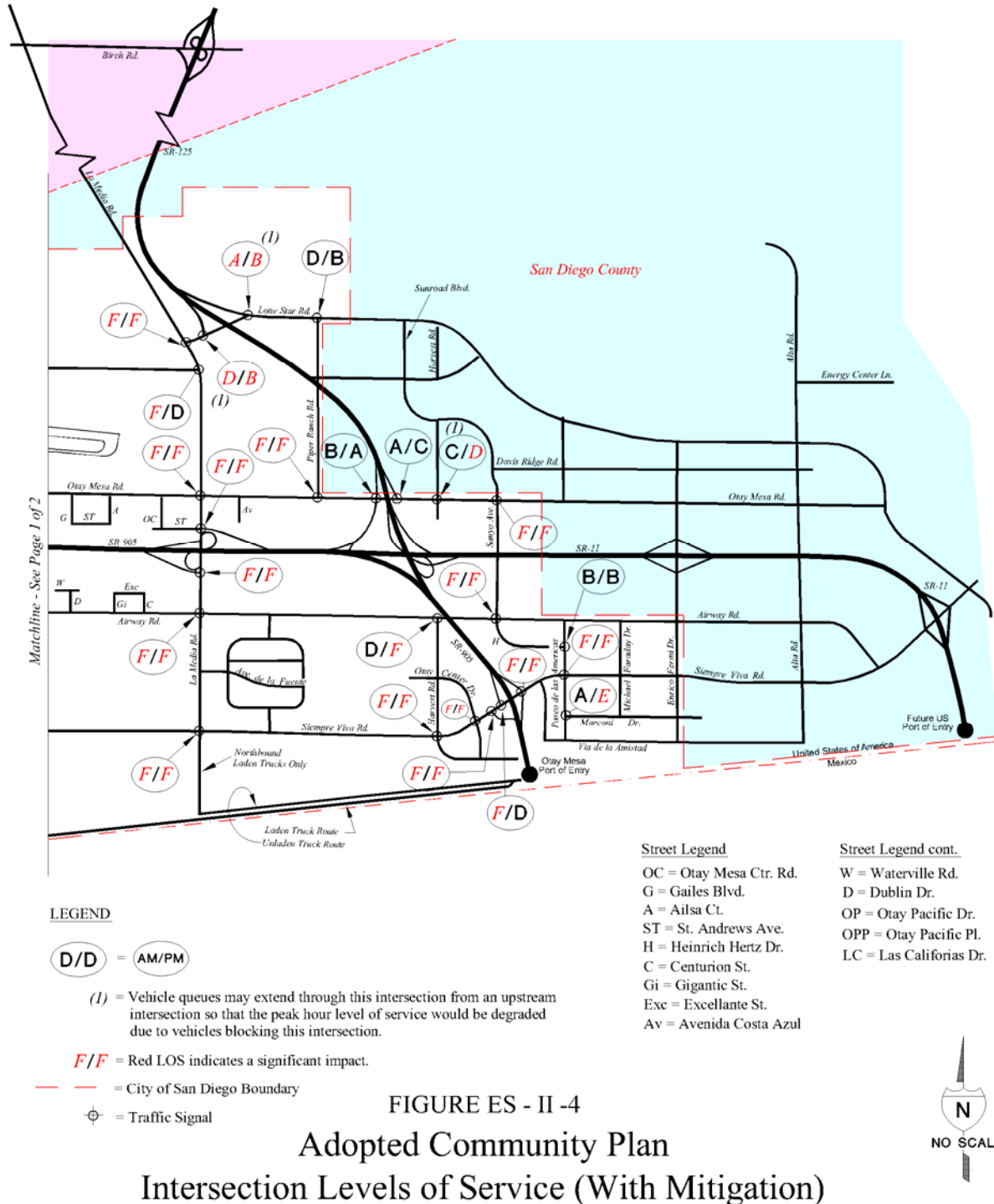


TABLE ES II-7

**Comparison Of
Buildout Adopted Community Plan To
3B Without La Media Road Scenario
Intersection Significant Impacts After Mitigation**

		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Intersection		LOS	LOS	LOS	LOS
1	Palm Ave. / I-805 SB Ramps	D	E	C	D
2	Palm Ave. / I-805 NB Ramps	A	(1) A	A	A
3	Palm Ave. / Dennery Rd.	D	E	C	E
4	Otay Mesa Rd. / Caliente Ave.	F	F	F	F
5	Caliente Ave. / SR-905 WB Ramps	E	E	(1) C	(1) C
6	Caliente Ave. / SR-905 EB Ramps	F	E	E	E
7	Caliente Ave. / Airway Rd.	F	F	F	F
8	Caliente Ave. / Siempre Viva Rd.	F	F	F	F
9	Otay Mesa Rd. / Heritage Rd.	F	F	F	F
10	Heritage Rd. / SR-905 WB Ramps	B	B	(1) B	(1) C
11	Heritage Rd. / SR-905 EB Ramps	(1) D	(1) D	(1) D	(1) C
12	Heritage Rd. / Airway Rd.	F	F	F	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	F	F	F	F
15	Airway Rd. / Cactus Rd.	F	F	F	F
16	Siempre Viva Rd. / Cactus Rd.	F	F	D	F
17	Otay Mesa Rd. / Britannia Blvd.	(1) C	(1) D	E	D
18	Britannia Blvd. / SR-905 WB Ramps	(1) D	F	E	F
19	Britannia Blvd. / SR-905 EB Ramps	F	F	F	E
20	Britannia Blvd. / Airway Rd.	F	F	F	F
21	Siempre Viva Rd. / Britannia Blvd.	F	F	F	F
22	Otay Mesa Rd. / La Media Rd.	F	F	F	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact

TABLE ES II-7 (Continued)

**Comparison Of
Buildout Adopted Community Plan To
3B Without La Media Road Scenario
Intersection Significant Impacts After Mitigation**

Intersection		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		LOS	LOS	LOS	LOS
23	La Media Rd. / SR-905 WB Ramps	F	F	F	F
24	La Media Rd. / SR-905 EB Ramps	F	F	F	(1) D
25	La Media Rd. / Airway Rd.	F	F	F	F
26	La Media Rd. / Siempre Viva Rd.	F	F	F	D
27	La Media Rd. / Lone Star Rd.	F	F	N/A	N/A
28	Lone Star Rd. / SR-125 SB Off Ramp	(1) D	(1) B	E	F
29	Lone Star Rd. / SR-125 NB On Ramp	(1) A	(1) A	(1) A	F
30	Lone Star Rd. / Piper Ranch Rd.	D	B	A	(1) A
31	Otay Mesa Rd. / Piper Ranch Rd.	F	F	D	D
32	Otay Mesa Rd. / SR-125 SB Off Ramp	(1) B	(1) A	C	(1) B
33	Otay Mesa Rd. / SR-125 NB On Ramp	(1) A	(1) B	A	C
34	Otay Mesa Rd. / Harvest Rd.	C	(1) D	B	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	F	F	F	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	F	F	(1) C	F
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	F	(1) D	F	(1) B
37	Siempre Viva Rd. / SR-905 NB Ramps	F	F	(1) D	F
38	Siempre Viva Rd. / Paseo de las Americas	F	F	E	F
39	Dennery Rd. / Del Sol Blvd.	F	E	D	D
40	Ocean View Hills Pkwy. / Del Sol Blvd.	E	F	D	D
41	Ocean View Hills Pkwy. / Street A	D	D	D	C
42	Old Otay Mesa Rd. / Beyer Blvd.	D	D	F	F
43	Otay Mesa Rd. / Corporate Center Dr.	F	F	E	F
44	Otay Mesa Rd. / Innovative Dr.	F	D	F	F

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

TABLE ES II-7 (Continued)

Comparison Of Buildout Adopted Community Plan To 3B Without La Media Road Scenario Intersection Significant Impacts After Mitigation

Intersection		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		LOS	LOS	LOS	LOS
45	Harvest Rd. / Airway Rd.	D	F	D	B
46	Harvest Rd. / Siempre Viva Rd.	F	F	C	D
47	Otay Mesa Rd. / Sanyo Ave.	F	F	F	F
48	Airway Rd. / Sanyo Ave.	F	F	D	D
49	Paseo de las Americas / Heinrich Hertz Dr.	B	B	A	B
50	Paseo de las Americas / Marconi Dr.	A	E	B	B
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	F	F	F	F
52	Aviator Rd. / La Media Rd.	F	D	C	B
53	Otay Valley Rd. / Avenida De Las Vistas	F	F	F	F

Legend

F = Shading indicates a significant impact.

The Adopted Community Plan Scenario has 42 intersections during the AM peak hour and ~~44~~ 46 during the PM peak hour that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario has 34 intersections during the AM peak hour and 37 during the PM peak hour that would remain significantly impacted after mitigation.

The following 35 intersections would remain significantly impacted under both scenarios:

- Palm Avenue / Dennerly Road (PM);
- Otay Mesa Road / Caliente Avenue (AM & PM);
- Caliente Avenue / SR-905 WB Ramps (AM & PM);
- Caliente Avenue / SR-905 EB Ramps (AM & PM);
- Caliente Avenue / Airway Road (AM & PM);
- Caliente Avenue / Siempre Viva Road (AM & PM);
- Otay Mesa Road / Heritage Road (AM & PM);
- Heritage Road / SR-905 EB Ramps (AM & PM);
- Heritage Road / Airway Road (AM & PM);
- Otay Mesa Road / Cactus Road (AM & PM);
- Airway Road / Cactus Road (AM & PM);
- Siempre Viva Road / Cactus Road (PM);
- Otay Mesa Road / Britannia Boulevard (AM);
- Britannia Boulevard / SR-905 WB Ramps (AM & PM);
- Britannia Boulevard / SR-905 EB Ramps (AM & PM);
- Britannia Boulevard / Airway Road (AM & PM);

- Siempre Viva Road / Britannia Boulevard (AM & PM);
- Otay Mesa Road / La Media Road (AM & PM);
- La Media Road / SR-905 WB Ramps (AM & PM);
- La Media Road / SR-905 EB Ramps (AM);
- La Media Road / Airway Road (AM & PM);
- La Media Road / Siempre Viva Road (AM);
- Lone Star Road / SR-125 SB Off Ramp (PM);
- Lone Star Road / SR-125 NB On Ramp (PM);
- Otay Mesa Road / Harvest Road (PM);
- Siempre Viva Road / Otay Center Drive (AM & PM);
- Siempre Viva Road / SR-905 SB to EB Ramp(PM);
- Siempre Viva Road / SR-905 SB to WB Ramp (AM & PM);
- Siempre Viva Road / SR-905 NB Ramps (PM);
- Siempre Viva Road / Paseo de las Americas (AM & PM);
- Otay Mesa Road / Corporate Center Drive (AM & PM);
- Otay Mesa Road / Innovative Drive (AM);
- Otay Mesa Road / Sanyo Avenue (AM & PM);
- Heritage Road / Otay Valley Road / Datsun Street (AM & PM);
- Otay Valley Road / Avenida De Las Vistas (AM & PM).

The following 11 intersections would remain significantly impacted under the Adopted Community Plan Scenario, but not the 3B Without La Media Road Scenario:

- Palm Avenue / I-805 SB Ramps;
- Palm Avenue / I-805 NB Ramps;
- Otay Mesa Road / SR-125 NB On-Ramp;
- Otay Mesa Road / Piper Ranch Road;
- Dennery Road / Del Sol Boulevard;
- Ocean View Hills Parkway / Del Sol Boulevard;
- Harvest Road / Airway Road;
- Harvest Road / Siempre Viva Road;
- Airway Road / Sanyo Avenue;
- Paseo de las Americas / Marconi Drive;
- Aviator Road / La Media Road.

The following three intersections would remain significantly impacted under the 3B Without La Media Road Scenario, but not the Adopted Community Plan Scenario:

- Heritage Road / SR-905 WB Ramps;
- Lone Star Road / Piper Ranch Road;
- Old Otay Mesa Road / Beyer Boulevard.

Ramp Meters

There are currently no freeway on-ramp traffic metering signals in operation at the 14 locations evaluated. Future freeway on-ramp meter operations were evaluated for the No Project / Adopted Community Plan scenario at the fourteen future on-ramp meters. The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

The City of San Diego Traffic Impact Study Manual and the Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service do not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. The 14 ramp meters were evaluated for the AM and PM peak hours. Ramp meter delays above 15 minutes would occur at six ramps during the AM peak hours and 11 ramps during the PM peak hours. Ramp meter delays above 15 minutes would occur during a total of 17 peak hours during the AM and PM peak hours.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service “E” or “F”. The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (PM);
- SR-905 Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

Figure ES II-5 shows the intersections that would be significantly impacted by ramp meter delays.

A comparison of the Adopted Community Plan land use scenario to the 3B Without La Media Road land use scenario indicates that the significantly impacted ramp meter locations above would be the same under the 3B Scenario, except with the addition of:

- SR-905 / Heritage Road Westbound On-Ramp (AM).

Ramp meter queues are also tabulated. Considering the queues that would exceed the ramp storage length, there are estimated to be 17 times queues would exceed the ramp storage length during the 28 peak hours evaluated at the 11 ramps listed below:

- I-805 / Palm Avenue Northbound On-ramp (AM and PM);
- SR-905 / Caliente Avenue Westbound On-ramp (AM and PM);
- SR-905 / Heritage Road Westbound On-ramp (PM);
- SR-905 / Britannia Boulevard Westbound On-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound On-ramp (PM);
- SR-905 / La Media Road Westbound On-ramp (AM and PM);
- SR-905 / La Media Road Eastbound On-ramp (PM);
- SR-905 / Siempre Viva Road Northbound On-ramp (AM and PM);
- SR-905 / Siempre Viva Road Southbound On-ramp (PM);
- SR-125 / Otay Mesa Road Northbound On-ramp (PM);
- SR-125 / Lone Star Road Northbound On-ramp (AM and PM).

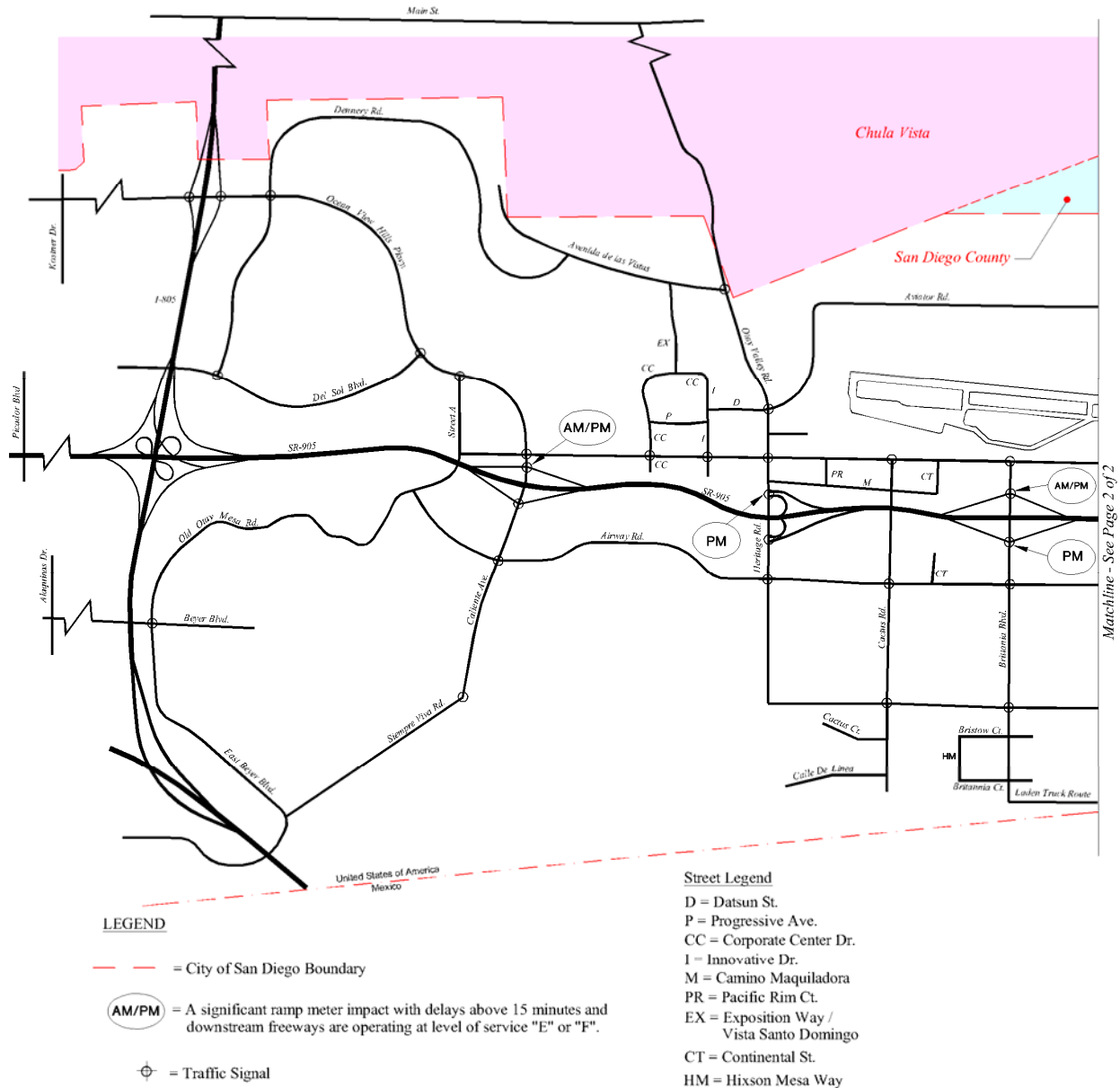
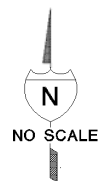


FIGURE ES - II -5
Adopted Community Plan
Significant Ramp Meter Delays



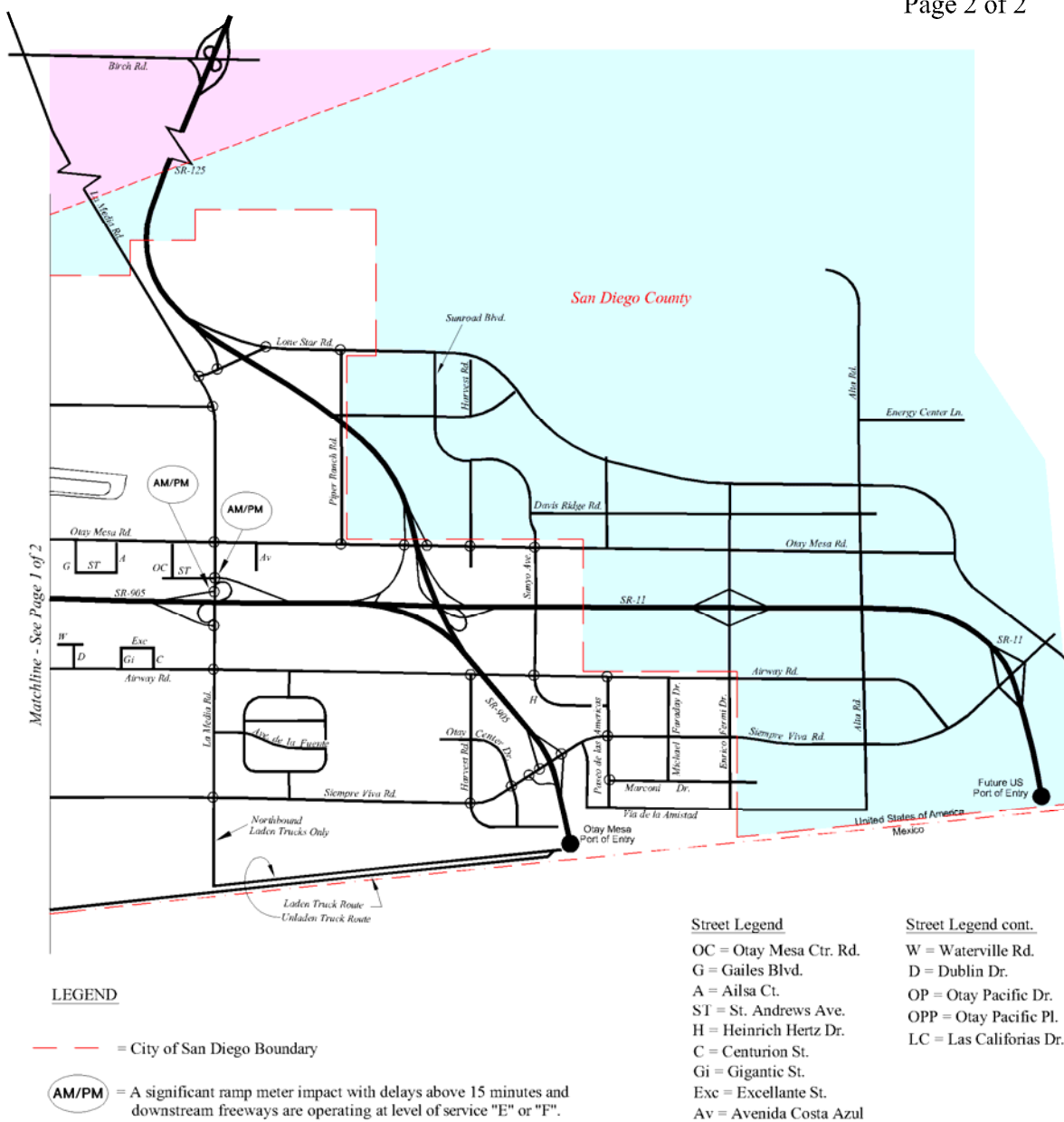


FIGURE ES - II -5
Adopted Community Plan
Significant Ramp Meter Delays



A comparison of the Adopted Community Plan land use scenario to the 3B Without La Media Road land use scenario indicates the locations would be the same for each scenario, but the peak hours would change with the Adopted Community Plan as listed below:

- SR-905 / Heritage Road Westbound On-Ramp (AM & PM);
- SR-125 / Otay Mesa Road Northbound On-Ramp (AM & PM);
- SR-125 / Lone Star Road Northbound On-Ramp (PM Only).

Freeway Interchange Queues

A queue analysis was prepared at the interchange ramp intersections plus closely spaced adjacent intersections within the study area, without and with the recommended intersection mitigation.

The queue analysis was provided to indicate the locations that might need queue storage enhancements such as extending right or left turn storage lengths, if feasible, during design and to ensure that any intersection with excessive queues was not reported as operating acceptably.

Of the 166 queues evaluated without intersection mitigation, during AM and PM peak hours, 92 are expected to exceed the available storage between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 192 queues were evaluated and 76 are expected to exceed the available storage length extending through the adjacent intersection. **Table ES II-8** lists the locations of the excessive queues.

Table ES II-8

Buildout Adopted Community Plan

Queue Analysis With Mitigation

Queue Locations North / South	AM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Southbound			Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	None	None	7,380
Caliente Ave. / SR-905 WB Ramps	428	50	-	315	None	-
Caliente Ave. / SR-905 EB Ramps	-	None	140	-	1,448	None
Caliente Ave. / Airway Rd.	-	225	2,500	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	None	None	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	75	None	-	650	None
Heritage Rd. / Airway Rd.	None	1,550	1,328	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	-	None
Britannia Blvd. / SR-905 WB Ramps	-	None	-	560	None	-
Britannia Blvd. / SR-905 EB Ramps	-	618	None	-	193	-
Britannia Blvd. / Airway Rd.	628	1,390	2,750	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	1,973	905	135
La Media Rd. / SR-905 WB Ramps	None	2,450	-	None	1,548	-
La Media Rd. / SR-905 EB Ramps	None	3,100	-	None	1,308	-
La Media Rd. / Airway Rd.	1,198	1,378	3,650	-	-	-

Queue Locations North / South	PM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Southbound			Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	250	33	2,775
Caliente Ave. / SR-905 WB Ramps	12	150	-	1,005	1,335	-
Caliente Ave. / SR-905 EB Ramps	-	None	None	-	1,570	None
Caliente Ave. / Airway Rd.	-	968	2,500	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	None	None	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	None	None	-	1,775	None
Heritage Rd. / Airway Rd.	288	None	None	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	-	None
Britannia Blvd. / SR-905 WB Ramps	-	110	-	4,425	None	-
Britannia Blvd. / SR-905 EB Ramps	-	None	None	-	2,000	None
Britannia Blvd. / Airway Rd.	None	None	90	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	640	745	None
La Media Rd. / SR-905 WB Ramps	3	2,425	-	None	None	-
La Media Rd. / SR-905 EB Ramps	None	1,725	-	360	1,950	-
La Media Rd. / Airway Rd.	None	None	2,325	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

■ = Shading indicates excess queue.

Table ES II-8

Buildout Adopted Community Plan

Queue Analysis With Mitigation

Queue Locations East / West	AM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennerly Rd.	None	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	None	5,300	None
Siempre Viva Rd. / SR-905 SB Ramps	-	1,140	-	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	2,325	943	-	1,375	None
Siempre Viva Rd. / Paseo de las Americas	2,350	33	3,100	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	485	130	None
Lone Star Rd. / SR-125 SB Off Ramp	-	1,488	-	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	None	-	None	None
Lone Star Rd. / Piper Ranch Rd.	None	1,875	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	None	-	None	None
Otay Mesa Rd. / Harvest Rd.	None	1,015	None	-	-	-

Queue Locations East / West	PM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennerly Rd.	1,383	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	553	None	None
Siempre Viva Rd. / SR-905 SB Ramps	-	5,650	-	1,593	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	None	6,000	-	None	4,225
Siempre Viva Rd. / Paseo de las Americas	None	None	2,750	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	193	None	3,725
Lone Star Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	None	-	None	298
Lone Star Rd. / Piper Ranch Rd.	None	None	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	None	-	None	608
Otay Mesa Rd. / Harvest Rd.	None	None	None	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

■ = Shading indicates excess queue.

Figure ES II-6 shows the interchange intersections that would be affected by excessive queues. Vehicle queues will extend through these intersections from an upstream intersection so that any acceptable peak hour level of service will be at level of service “F” due to vehicles blocking this intersection. The intersection level of service table (**Table ES II-6**) includes this condition as footnoted.

III. SCENARIO 3B WITHOUT LA MEDIA ROAD (PROPOSED COMMUNITY PLAN BUILDOUT)

Roadway Segments

Roadway segments at buildout were evaluated for levels of service based on the City of San Diego Street Design manual. The initial “without mitigation” classification of roadways is based on the existing functional classifications or the current Community Plan classification if the street did not exist in the existing conditions assessment or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing-sized facility due to its capacity. Segments that would be at level of service “E” or “F” are considered to be significantly impacted by implementation of the land use plan. **Table ES III-1** lists segments that would be at level of service “E” or “F” for this scenario, without reclassification and construction to a higher standard, and the level of service after reclassification and construction to a higher standard.

As shown in this table, 41 roadway segments would operate at level of service “E” or “F” with the assumed initial classification. After reclassification and construction to a higher standard, 24 segments would operate at “E” or “F” and remain significantly impacted, as indicated with a “Y” in the last column with the (S?) heading. For comparison, the No Project Scenario has 59 segments at level of service “E” or “F” initially and 38 segments that remain significantly impacted.

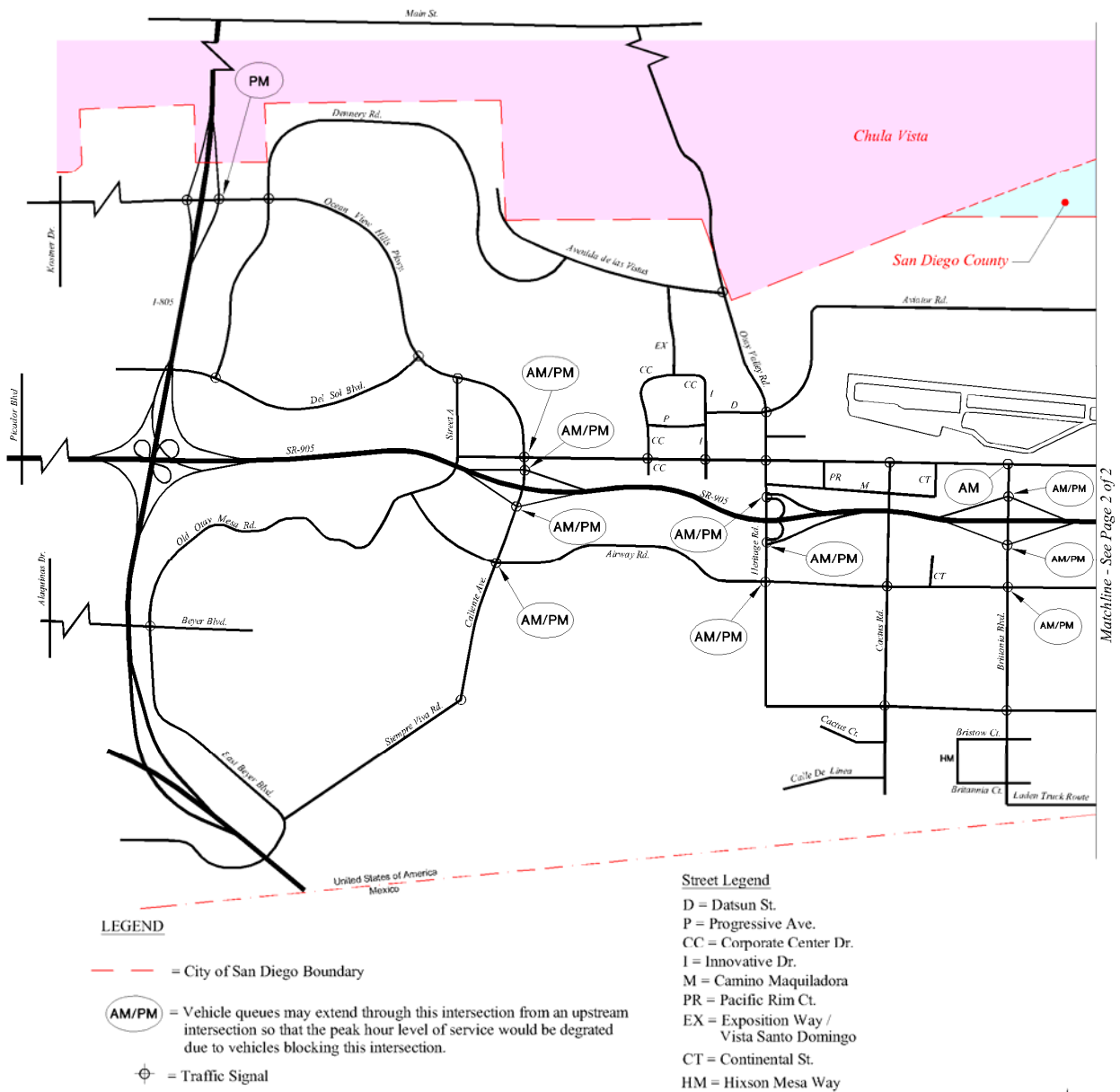
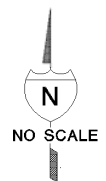


FIGURE ES - II -6
Adopted Community Plan
Interchange and Adjacent Intersection Queueing Impacts



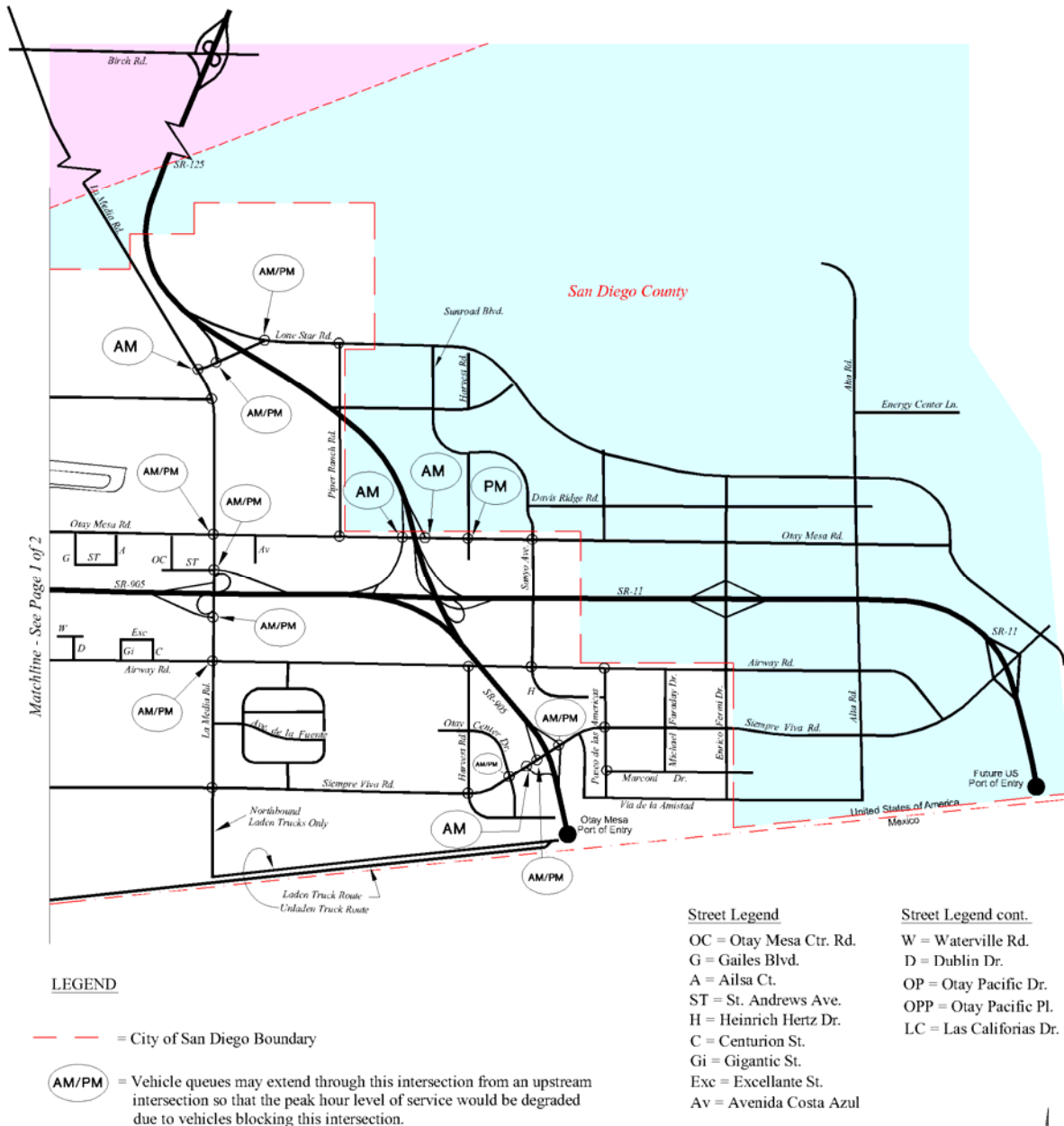


FIGURE ES - II -6
Adopted Community Plan
Interchange and Adjacent Intersection Queueing Impacts

TABLE ES III-1

Buildout Scenario 3B Without La Media Rd.

Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS	New Class	NEW LOS	S?
Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	72,500	F	N	-	Y
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	76,500	F	N	-	Y
	SR-125 to Harvest Rd.	11	4-M	40,000	36,000	E	6-PA	C	N
Airway Road	Caliente Ave. to Heritage Rd.	15	4-M	40,000	38,000	E	N	-	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	60,500	F	6-PA	F	Y
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	44,500	F	6-M	D	N
Siempre Viva Road	Otay Center Dr. to SR-905	31	6-PA	60,000	60,000	E	N	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	63,000	F	N	-	Y
Caliente Avenue	Airway Rd. to Beyer Blvd.	43	4-M	40,000	46,000	F	6-M	E	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	4-M	40,000	41,000	F	N	-	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas	46	6-PA	60,000	83,000	F	N	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	75,500	F	6-PA	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	48,000	E	6-PA	C	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	40,500	F	4-M	F	Y
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	40,500	F	4-M	F	Y
Britannia Boulevard	SR-905 to Airway Rd.	56	4-M	40,000	63,000	F	6-PA	F	Y
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	44,500	F	6-M	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	22,000	F	4-CL	D	N
La Media Road	SR-905 to Airway Rd.	63	6-PA	60,000	64,000	F	N	-	Y

= Segment Number

** = Segment is in Chula Vista.

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

■ = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE ES III-1

Buildout Scenario 3B Without La Media Rd.

Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS	New Class	NEW LOS	S?
Lone Star Road	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	36,000	E	6-PA	C	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	23,000	F	4-CL	D	N
Dennery Road	Black Coral Ln. to East End	79	2-CN	10,000	16,500	F	N	-	Y
Avenida De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	19,500	F	N	-	Y
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe Riviera Pointe to Dennery Rd.	83 84	2-CN 2-CL	10,000 15,000	23,000 23,000	F F	N N	- -	Y Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	16,000	F	N	-	Y
Corporate Center Drive	Progressive Ave. to Innovative Dr.	93	2-C	8,000	8,000	E	2-CL	C	N
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	24,500	F	4-CL	D	N
Paseo de las Americas	Airway Rd. to Siempre Viva Rd. Siempre Viva Rd. to Marconi Dr.	99 100	2-C 2-C	8,000 8,000	16,500 15,000	F F	4-CL 4-CL	C C	N N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	8,000	E	2-CL	C	N
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (3)	102	4-C	15,000	15,500	F	4-CL	C	N
St. Andrews Avenue	Otay Mesa Center Rd. to La Media Rd.	105	2-C	8,000	13,500	F	4-CL	C	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	12,500	F	4-C	D	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct. Pacific Rim Ct. to Cactus Rd.	108 109	2-C 2-C	8,000 8,000	9,500 7,500	F E	N N	- -	Y Y
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	11,500	F	N	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	24,000	F	4-CL	D	N
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	30,000	F	4-CL	E	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave. (3)	115	2-CL	15,000	19,000	E	4-CL	B	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (4)	119	2-CN	10,000	12,500	F	N	-	Y

= Segment Number

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

■ = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

Figure ES III-1 shows recommended roadway classifications and also segments highlighted in red that are proposed to be classified to a higher standard.

Refer to Chapter 7, page 7-11 for discussion of the proposed mitigation and / or explanation of why the significant impact is not proposed to be fully mitigated.

A comparison of the 3B Without La Media Road land use plan significantly impacted roadway segments to the Buildout Adopted Community Plan Scenario is provided below, based on the listing of impacted roadway segments shown in **Table ES III-2**.

The 3B Without La Media Road Scenario has 24 roadway segments that would remain significantly impacted after mitigation.

The Adopted Community Plan Scenario has 38 roadway segments that would remain significantly impacted after mitigation.

The following 19 roadway segments would remain significantly impacted under both scenarios.



FIGURE ES - III -1

Scenario 3B Without La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)

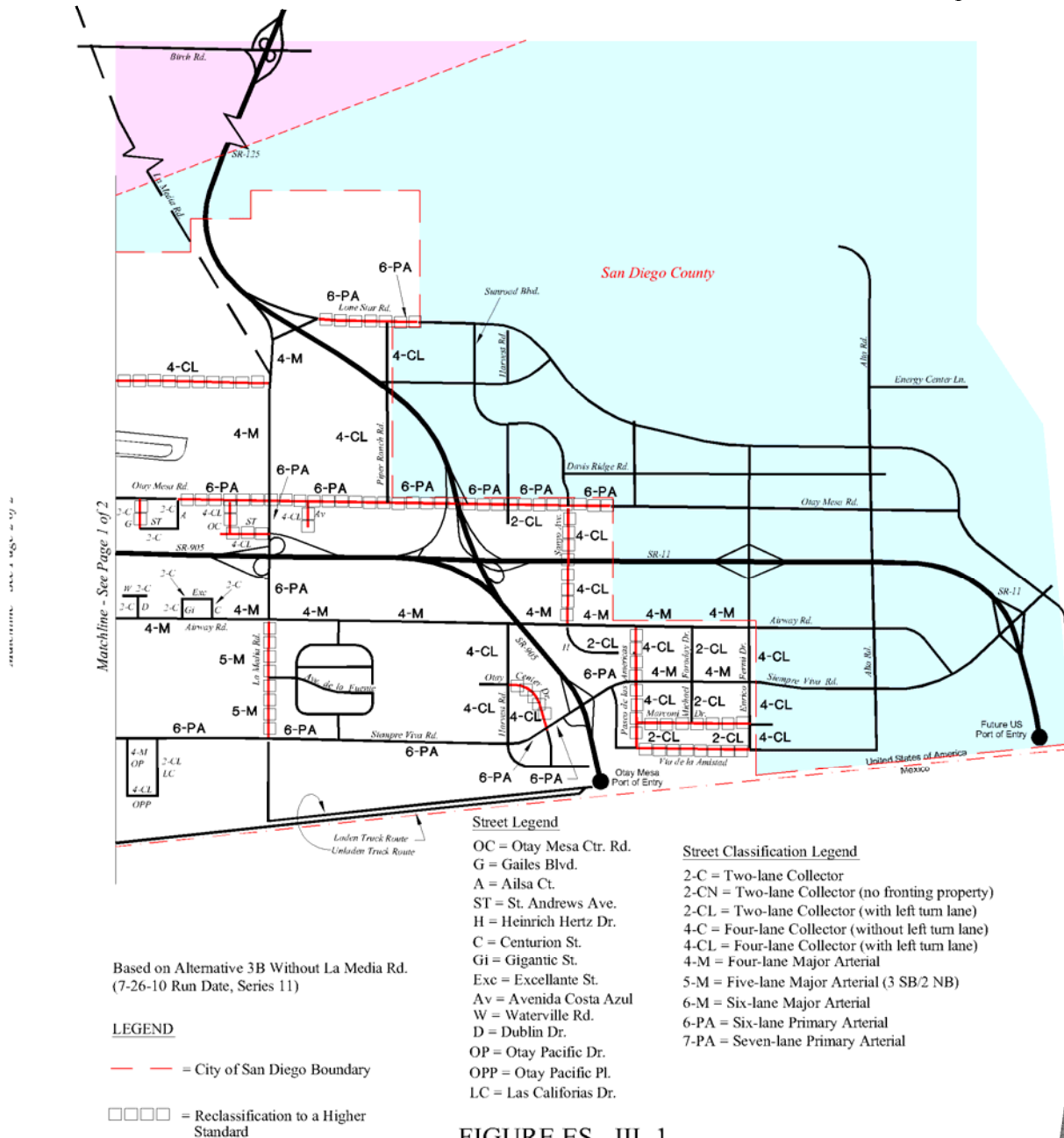


FIGURE ES - III -1

Scenario 3B Without La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)

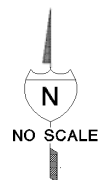


TABLE ES III-2
Comparison Of
Buildout 3B Without La Media Road Scenario To
Adopted Community Plan
Roadway Segments Significant Impacts After Mitigation

Street	Segment	#	ACP (1) S?	3B W/Out La Media (2) S?
Otay Mesa	Caliente Ave. to Corporate Center Dr.	2	Y	Y
	Heritage Rd. to Cactus Rd.	5	Y	Y
	Britannia Blvd. to Ailsa Ct.	7	Y	N
Airway Road	Caliente Ave. to Heritage Rd.	15	Y	Y
	Heritage Rd. to Cactus Rd.	16	N	Y
	Cactus Rd. to Britannia Blvd.	17	Y	N
	La Media Rd. to Harvest Rd.	19	Y	N
	Harvest Rd. to Sanyo Ave.	20	Y	N
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	Y	N
	Otay Center Dr. to SR-905	31	Y	Y
	SR-905 to Paseo de las Americas	32	Y	Y
Palm Avenue	I-805 to Dennery Rd.	37	Y	N
Caliente Avenue	Airway Rd. to Siempre Viva Rd.	43	Y	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	Y	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	Y	Y
	Avenida De Las Vistas to Datsun St.	47	Y	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	N	Y
	Airway Rd. to Siempre Viva Rd.	53	N	Y
	Siempre Viva Rd. to South End	54	Y	N
Britannia Boulevard	SR-905 to Airway Rd.	56	N	Y
La Media Road	Birch Rd. to Lone Star Rd.**	59	Y	N/A
	Lone Star Rd. to Aviator Rd.	60	Y	N
	Aviator Rd. to Otay Mesa Rd.	61	Y	N
	SR-905 to Airway Rd.	63	Y	Y
Harvest Road	Otay Center Dr. to Siempre Viva Rd.	67	Y	N
Dennery Road	Red Coral Ln. to Black Coral Ln.	78	Y	N
	Black Coral Ln. to East End	79	Y	Y
Avenida De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	Y	Y
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	83	Y	Y
	Riviera Pointe to Dennery Rd.	84	Y	Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	Y	Y
Sanyo Avenue	Otay Mesa Rd. to Airway Rd.	97	Y	N
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	98	Y	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	Y	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	Y	Y
	Pacific Rim Ct. to Cactus Rd.	109	N	Y
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	Y	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	Y	N
Datsun Street	Innovative Dr. to Heritage Rd.	114	Y	Y
Excellante Street	Airway Rd. to Gigantic St.	116	Y	N
Gigantic Street	Excellante St. to Centurion St.	117	Y	N
Centurion Street	Airway Rd. to Gigantic St.	118	Y	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr.	119	Y	Y

= Segment Number

** = Segment in Chula Vista.

S? = Significant impact, Yes (Y) or No (N).

(1) = Significant impact in the Adopted Community Plan Scenario.

(2) = Significant impact in the 3B Without La Media Road Scenario.

Y = Shading indicates a significant impact.

- Otay Mesa Road (Caliente Avenue to Corporate Center Drive);
- Otay Mesa Road (Heritage Road to Cactus Road);
- Airway Road (Caliente Avenue to Heritage Road);
- Siempre Viva Road (Otay Center Drive to SR-905)
- Siempre Viva Road / SR-905 to Paseo de las Americas);
- Caliente Avenue (Airway Road to Siempre Viva Road);
- Caliente Avenue (Beyer Boulevard to Siempre Viva Road);
- Heritage Road / Otay Valley Road (Main Street to Avenida de las Vistas);
- Heritage Road / Otay Valley Road (Avenida de las Vistas to Datsun Street);
- La Media Road (SR-905 to Airway Road);
- Dennery Road (Black Coral Lane to East End);
- Avenida de las Vistas (Vista Santo Domingo to Dennery Road);
- Del Sol Boulevard (Surf Crest Drive to Riviera Pointe);
- Del Sol Boulevard (Riviera Pointe to Dennery Road);
- Old Otay Mesa Road (Crescent Bay Drive to Airway Road);
- Camino Maquiladora (Heritage Road to Pacific Rim Court);
- Progressive Avenue (Corporate Center Drive to Innovative Drive);
- Datsun Street (Innovative Drive to Heritage Road);
- Exposition Way / Vista Santo Domingo (Avenida de las Vista to Corporate Center Drive).

The following 19 roadway segments would remain significantly impacted after mitigation in the Adopted Community Plan land use scenario, but not in the 3B Without La Media Road scenario:

- Otay Mesa Road (Britannia Boulevard to Ailsa Court);
- Airway Road (Cactus Road to Britannia Boulevard);
- Airway Road (La Media Road to Harvest Road);
- Airway Road (Harvest Road to Sanyo Avenue);
- Siempre Viva Road (Caliente Avenue to East Beyer Boulevard);
- Palm Avenue (I-805 to Dennery Road);
- Cactus Road (Siempre Viva Road to South End);
- La Media Road (Birch Road to Lone Star Road); (No segment in 3B Without La Media Road);
- La Media Road (Lone Star Road to Aviator Road);
- La Media Road (Aviator Road to Otay Mesa Road);
- Harvest Road (Otay Center Drive to Siempre Viva Road);
- Dennery Road (Red Coral Lane to Black Coral Lane);
- Sanyo Avenue (Otay Mesa Road to Airway Road)
- Heinrich Hertz Drive (Airway Road to Paseo de las Americas);
- Marconi Drive (Paseo de las Americas to Enrico Fermi Drive);
- Otay Mesa Center Road (Otay Mesa Road to St. Andrews Avenue);
- Excellante Street (Airway Road to Gigantic Street);
- Gigantic Street (Excellante Street to Centurion Street);
- Centurion Street (Airway Road to Gigantic Street).

The following roadway segments would remain significantly impacted after mitigation in the 3B Without La Media Road land use scenario but not in the Adopted Community Plan scenario.

- Airway Road (Heritage Road to Cactus Road);
- Cactus Road (Otay Mesa Road to Airway Road);
- Cactus Road (Airway Road to Siempre Viva Road);
- Britannia Boulevard (SR-905 to Airway Road);
- Camino Maquiladora (Pacific Rim Court to Cactus Road);

Figure ES III-2 shows the 3B Without La Media Road use scenario roadway segments that would remain at level of service “E” or “F” after mitigation.

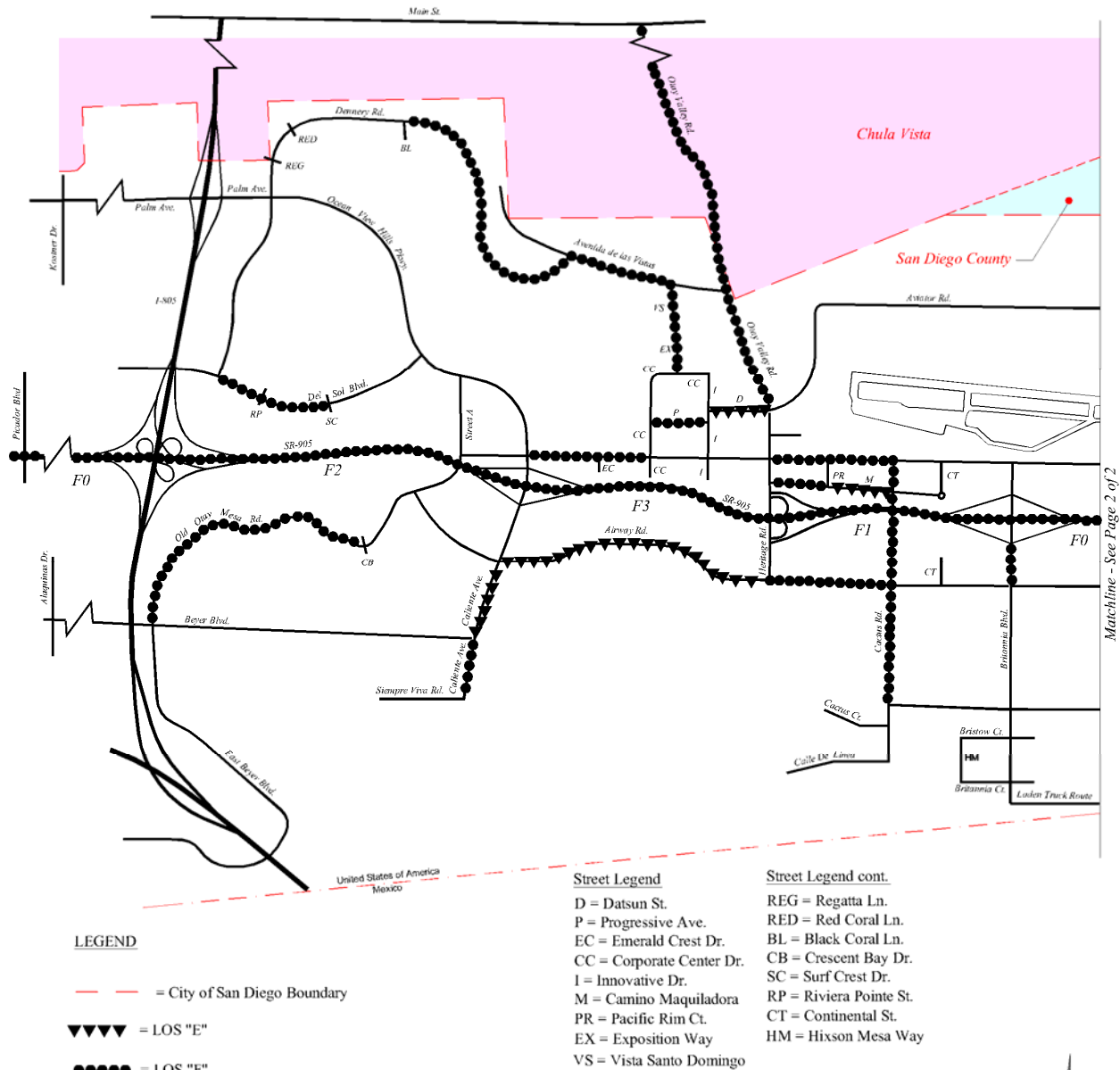


FIGURE ES - III -2
Scenario 3B Without La Media Road Land Use Scenario
Roadway Segments Remaining at LOS "E" or "F" After Mitigation



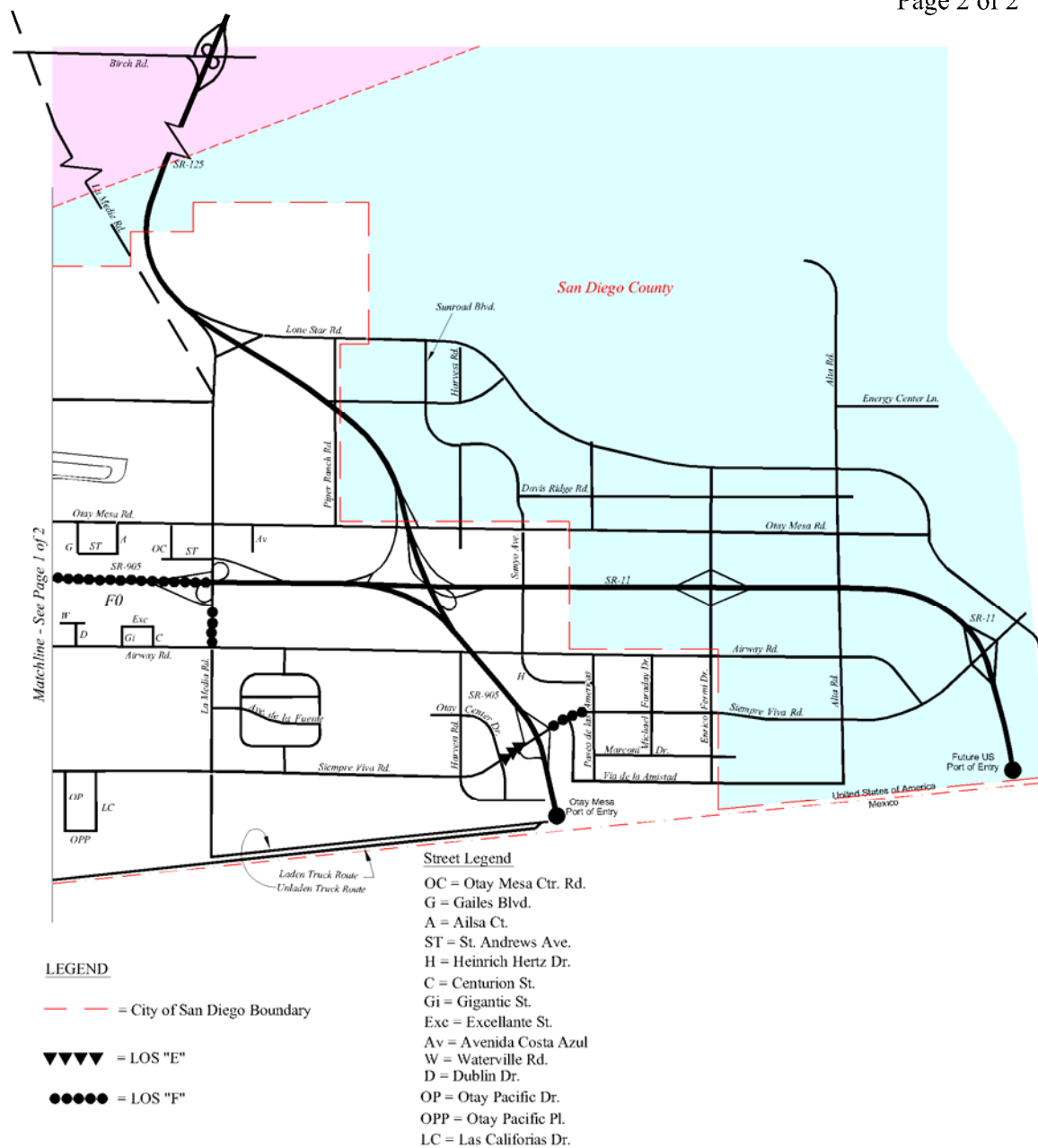


FIGURE ES - III -2

Scenario 3B Without La Media Road Land Use Scenario

Roadway Segments Remaining at LOS "E" or "F" After Mitigation

Freeway Segments

Table ES III-3 lists freeway segments evaluated for the 3B Without La Media Road scenario.

Interstate 805

Segments of Interstate 805 north of State Route 905 are projected to be significantly impacted by buildout of the proposed Otay Mesa Community Plan (Scenario 3B Without La Media Road scenario) and regional cumulative traffic. With existing lanes and an additional northbound auxiliary lane currently being constructed between SR-905 and Palm Avenue, the segments of I-805 north of SR-905 are expected to be at level of service “F”. The Adopted SANDAG 2050 Regional Transportation Plan (RTP) includes two managed lanes on I-805 in each direction north of SR-905. With these additional lanes, the segments of I-805 between Main Street and Palm Avenue and the segment between Palm Avenue and SR-905 would be at level of service “D” during peak hours.

Table ES III-4 shows freeway levels of service with HOV lanes added to segments at level of service “F”.

State Route 905 is assumed with six lanes and auxiliary lanes as is being constructed by Caltrans. Impacts would be significant and unmitigated between Picador Boulevard and La Media Road. State Route 905 has been designed so that median High Occupancy Vehicle (HOV) lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service.

TABLE ES III-3

**Scenario 3B Freeway Segment Levels of Service
Without La Media Road**

Segment		Lanes (1-Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	128,500	6,853	1.05	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,550	221,000	11,787	1.38	F2
	Caliente Ave. to Heritage Rd.	3	7,050	196,000	10,453	1.48	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	173,000	9,227	1.31	F1
	Britannia Blvd. to La Media Rd.	3	7,050	154,000	8,213	1.16	F0
	La Media Rd. to SR-125	3	7,050	103,500	5,520	0.78	C
	SR-125 to Siempre Viva Rd.	3	7,050	99,000	5,280	0.75	C
	Siempre Viva Rd. to Border	3	7,050	64,500	3,440	0.49	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	248,000	13,227	1.18	F0
	Palm Ave. to SR-905	4+AUX	11,200	222,000	11,840	1.06	F0
	SR-905 to I-5	4	9,400	122,000	6,507	0.69	C
	I-5 to Border	6	14,100	135,500	7,227	0.51	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	155,500	8,293	0.88	D
	Lone Star Rd. to SR-905	4(Toll)	9,400	115,500	6,160	0.66	C
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	47,000	2,507	0.53	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	24,500	1,307	0.28	A
	Siempre Viva Rd. to Border	2	4,700	39,500	2,107	0.45	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

F0

= Shading indicates a significant impact.

Note:

- (1) Buildout Forecast Volume, Average Daily Traffic Volume (7-26-10 Run Date, Series 11)
- (2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3
- (3) = 2 Mainlanes + Auxillary Lane
- (4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

TABLE ES III-4

Scenario 3B Without La Media Road Freeway Segment Levels of Service
(With HOV Lanes Added To LOS F Segments)

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	128,500	6,853	0.83	D
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	221,000	11,787	1.13	F0
	Caliente Ave. to Heritage Rd.	+H	3	8,650	196,000	10,453	1.18	F0
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	173,000	9,227	1.04	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	154,000	8,213	.92	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	248,000	13,227	.92	D
	Palm Ave. to SR-905	+2H	4+AUX	14,400	222,000	11,840	.82	D

Legend

Cap = Capacity of Segment

Mainlane Cap. @ 2,350 VPHPL

Auxillary Lane Cap. @ 1,800 VPHPL


HOV Lane Cap. @ 1,600 VPHPL

Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

 = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (07-26-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

A comparison of the 3B Without La Media Road Scenario significantly impacted freeway segments to the Adopted Community Plan Scenario is provided below, based on the listing of impacted freeway segments shown in **Table ES III-5**.

The Adopted Community Plan Scenario has six freeway segments that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario has three freeway segments that would remain significantly impacted after mitigation.

The following three freeway segments would remain significantly impacted under both scenarios:

- SR-905 (I-805 to Caliente Avenue);
- SR-905 (Caliente Avenue to Heritage Road);
- SR-905 (Heritage Road to Britannia Boulevard).

The following three freeway segments would remain significantly impacted under the Adopted Community Plan Scenario but not the 3B Without La Media Road Scenario:

- SR-905 (Picador Boulevard to I-805);
- SR-905 (Britannia Boulevard to La Media Road);
- I-805 (Main Street to Palm Avenue).

TABLE ES III-5

**Comparison of
Buildout 3B Without La Media Road To
Adopted Community Plan
Freeway Segment Significant Impacts After Mitigation
(With HOV Lanes Added)**


Segment		ADD HOV	Lanes (1Way)	LOS (1)	LOS (2)
SR-905	Picador Blvd. to I-805	+H	2 + AUX	E	D
	I-805 to Caliente Ave.	+H	3 + CL	F1	F0
	Caliente Ave. to Heritage Rd.	+H	3	F2	F0
	Heritage Rd. to Britannia Blvd.	+H	3	F0	F0
	Britannia Blvd. to La Media Rd.	+H	3	F0	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	E	D

Legend

LOS = Level of Service

(1) = Adopted Community Plan land use scenario.

(2) = 3B Without La Media Road land use scenario.

 = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

Intersections

Intersections operating at level of service “E” or “F” are considered to be significantly impacted by implementation of the land use plan. **Table ES III-6** shows intersection levels of service. Of the 52 intersections evaluated at Buildout in the 3B Without La Media Road scenario, four would be at level of service “E” and ~~38~~ 37 would be at level of service “F” during the AM peak hour. During the PM peak hour, four would be at level of service “E” and 40 would be at level of service “F”. A total of ~~47~~ 48 intersections would operate at level of service “E” or “F” during the morning and / or evening peak hour. In comparison, the No Project Scenario would have a total of 49 intersections at level of service “E” or “F” before mitigation.

With mitigation, six would be at level of service “E” and 22 would be at level of service “F” during the AM peak hour. During the PM peak hour, three would be at level of service “E” and 26 would be at level of service “F”. With mitigation, a total of ~~36~~ 33 intersections would operate at level of service “E” or “F” during the morning and / or evening peak hour. In comparison, the No Project Scenario would have a total of 40 intersections at level of service “E” or “F” after mitigation.

Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a degraded level of service, as footnoted in this table.

TABLE ES III-6

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

Intersection	Without Mitigation				With Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	CD	LOS	CD	LOS	CD	LOS	CD	LOS
1 Palm Ave. / I-805 SB Ramps	48.9	D	51.3	D	24.8	C	35.7	D
2 Palm Ave. / I-805 NB Ramps	116.1	F	122.6	F	4.6	A	5.5	A
3 Palm Ave. / Dennerly Rd.	33.5	C	67.2	E	-	-	-	-
4 Otay Mesa Rd. / Caliente Ave.	263.5	F	146.0	F	205.9	F	87.2	F
5 Caliente Ave. / SR-905 WB Ramps	83.1	F	43.2	(1) D	34.0	(1) C	34.0	(1) C
6 Caliente Ave. / SR-905 EB Ramps	165.7	F	150.5	F	55.0	E	70.2	E
7 Caliente Ave. / Airway Rd.	228.5	F	223.0	F	143.0	F	200.5	F
8 Caliente Ave. / Beyer Blvd.	252.0	F	429.8	F	212.7	F	122.4	F
9 Otay Mesa Rd. / Heritage Rd.	367.5	F	257.4	F	272.0	F	161.2	F
10 Heritage Rd. / SR-905 WB Ramps	69.9	E	81.1	F	15.9	(1) B	28.4	(1) C
11 Heritage Rd. / SR-905 EB Ramps	113.0	F	86.4	F	39.5	(1) D	25.5	(1) C
12 Heritage Rd. / Airway Rd.	162.7	F	402.8	F	144.5	F	88.3	F
13 Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14 Otay Mesa Rd. / Cactus Rd.	437.9	F	290.5	F	139.6	F	199.7	F
15 Airway Rd. / Cactus Rd.	361.5	F	437.7	F	188.6	F	306.2	F
16 Siempre Viva Rd. / Cactus Rd.	48.7	D	127.7	F	47.6	D	117.3	F
17 Otay Mesa Rd. / Britannia Blvd.	108.5	F	117.2	F	63.1	E	47.5	D
18 Britannia Blvd. / SR-905 WB Ramps	240.5	F	577.4	F	65.0	E	547.1	F
19 Britannia Blvd. / SR-905 EB Ramps	353.3	F	235.1	F	305.9	F	67.1	E
20 Britannia Blvd. / Airway Rd.	618.2	F	615.8	F	184.9	F	241.1	F
21 Siempre Viva Rd. / Britannia Blvd.	363.3	F	362.8	F	177.5	F	143.2	F
22 Otay Mesa Rd. / La Media Rd.	457.1	F	443.8	F	131.9	F	126.2	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates significant impact.

TABLE ES III-6 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

Intersection	Without Mitigation				With Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23 La Media Rd. / SR-905 WB Ramps	266.1	F	227.2	F	129.8	F	112.7	F
24 La Media Rd. / SR-905 EB Ramps	234.7	F	84.7	F	162.2	F	48.5	(1) D
25 La Media Rd. / Airway Rd.	496.6	F	507.9	F	182.5	F	212.5	F
26 La Media Rd. / Siempre Viva Rd.	244.0	F	112.1	F	81.6	F	37.1	D
27 La Media Rd. / Lone Star Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28 Lone Star Rd. / SR-125 SB Off Ramp	63.6	E	96.8	F	-	-	-	-
29 Lone Star Rd. / SR-125 NB On Ramp	2.1	(1) A	147.8	F	-	-	-	-
30 Lone Star Rd. / Piper Ranch Rd.	8.1	A	9.3	(1) A	-	-	-	-
31 Otay Mesa Rd. / Piper Ranch Rd.	129.2	F	166.2	F	44.6	D	47.5	D
32 Otay Mesa Rd. / SR-125 SB Off Ramp	82.9	F	13.0	(1) B	30.4	C	11.0	(1) B
33 Otay Mesa Rd. / SR-125 NB On Ramp	4.8	A	22.0	C	-	-	-	-
34 Otay Mesa Rd. / Harvest Rd.	37.9	D	133.7	F	11.8	B	38.9	(1) D
35 Siempre Viva Rd. / Otay Center Dr.	276.0	F	213.0	F	83.0	F	85.4	F
36 Siempre Viva Rd. / SR-905 SB to EB Ramp	29.0	(1) C	146.2	F	-	-	-	-
36A Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 2,641	F	(2) 205.7	F	382.0	F	16.3	(1) B
37 Siempre Viva Rd. / SR-905 NB Ramps	47.2	(1) D	262.7	F	39.3	(1) D	250.4	F
38 Siempre Viva Rd. / Paseo de las Americas	188.8	F	367.1	F	78.8	E	159.5	F
39 Dennery Rd. / Del Sol Blvd.	49.3	D	49.4	D	-	-	-	-
40 Ocean View Hills Pkwy. / Del Sol Blvd.	67.8	E	67.3	E	50.5	D	53.3	D
41 Ocean View Hills Pkwy. / Street A	48.2	D	57.9	E	35.5	D	34.6	C
42 Old Otay Mesa Rd. / Beyer Blvd.	381.2	F	396.5	F	194.3	F	181.8	F
43 Otay Mesa Rd. / Corporate Center Dr.	119.3	F	184.3	F	78.6	E	140.6	F
44 Otay Mesa Rd. / Innovative Dr.	114.4	F	108.9	F	113.7	F	89.8	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

(2) = Unsignalized: SB to WB right turn at LOS F (AM and PM Peak Hours)

F = Shading indicates a significant impact.

TABLE ES III-6 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

Intersection	Without Mitigation				With Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	CD	LOS	CD	LOS	CD	LOS	CD	LOS
45 Harvest Rd. / Airway Rd.	116.7	F	13.8	B	42.5	D	13.5	B
46 Harvest Rd. / Siempre Viva Rd.	76.6	E	69.2	E	28.7	C	51.5	D
47 Otay Mesa Rd. / Sanyo Ave.	263.3	F	276.6	F	106.7	F	89.0	F
48 Airway Rd. / Sanyo Ave.	225.6	F	229.8	F	49.7	D	38.6	D
49 Paseo de las Americas / Heinrich Hertz Dr.	(3) 988.3	F	(3) 244.6	F	8.9	A	13.0	B
50 Paseo de las Americas / Marconi Dr.	(4) 869.6	F	(4) 108.0	F	11.5	B	13.4	B
51 Heritage Rd. / Otay Valley Rd.	516.4	F	837.9	F	178.7	F	382.7	F
52 Aviator Rd. / La Media Rd.	105.1	F	38.0	D	27.7	C	18.3	B
53 Otay Valley Rd. / Avenida De Las Vistas	764.4	F	298.6	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay volumes higher than two times the LOS E delay of 80.0 seconds.

Legend

CD = Control Delay

LOS = Level of Service

(3) Unsignalized: eastbound left turn at LOS F(AM Peak Hour);
eastbound left and right turns at LOS F (PM Peak Hour).

(4) Unsignalized: westbound left turn at LOS F (AM and PM Peak Hours);
westbound right turn at LOS F (PM Peak Hour).

F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
<i>Source: 2000 Highway Capacity Manual</i>	

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. The Design Manual requires widening for an additional 10 feet at approaches to intersecting four or six lane streets for a two lane left turn, and this additional width is not considered mitigation. Therefore, dual left turns are to be assumed at all four or six lane major and primary arterials, before mitigation, unless a supporting traffic study documents that a single left turn would be sufficient. Overlapping left-turn / right-turn phases are recommended at the high volume right turns during the traffic signal design stage.

Separate single or dual right turn lanes at new intersections should be designed with appropriate right of way widths. At retrofit locations additional lanes have been reviewed for initial feasibility by on-site observations and aerial photography. In some cases additional right of way will be needed, but only during the design phase will the required widths be determined.

Improvements are recommended at the interchange ramps for SR-905 / Caliente Avenue, SR-905 / Future Heritage Road, SR-905 / Britannia Boulevard; SR-905 / La Media Rd.; SR-905 / Siempre Viva Road. Subsequent design requirements from Caltrans may change the recommended lane configurations.

All intersections are planned to be signalized. Lane configurations with and without mitigation are shown in **Figure ES III-3**

Figure ES III-4 shows graphically the intersection levels of service after mitigation.

Refer to Chapter 7 page 7-30 for the discussion of the proposed mitigations and / or explanation of why the significant impact is not proposed to be fully mitigated.

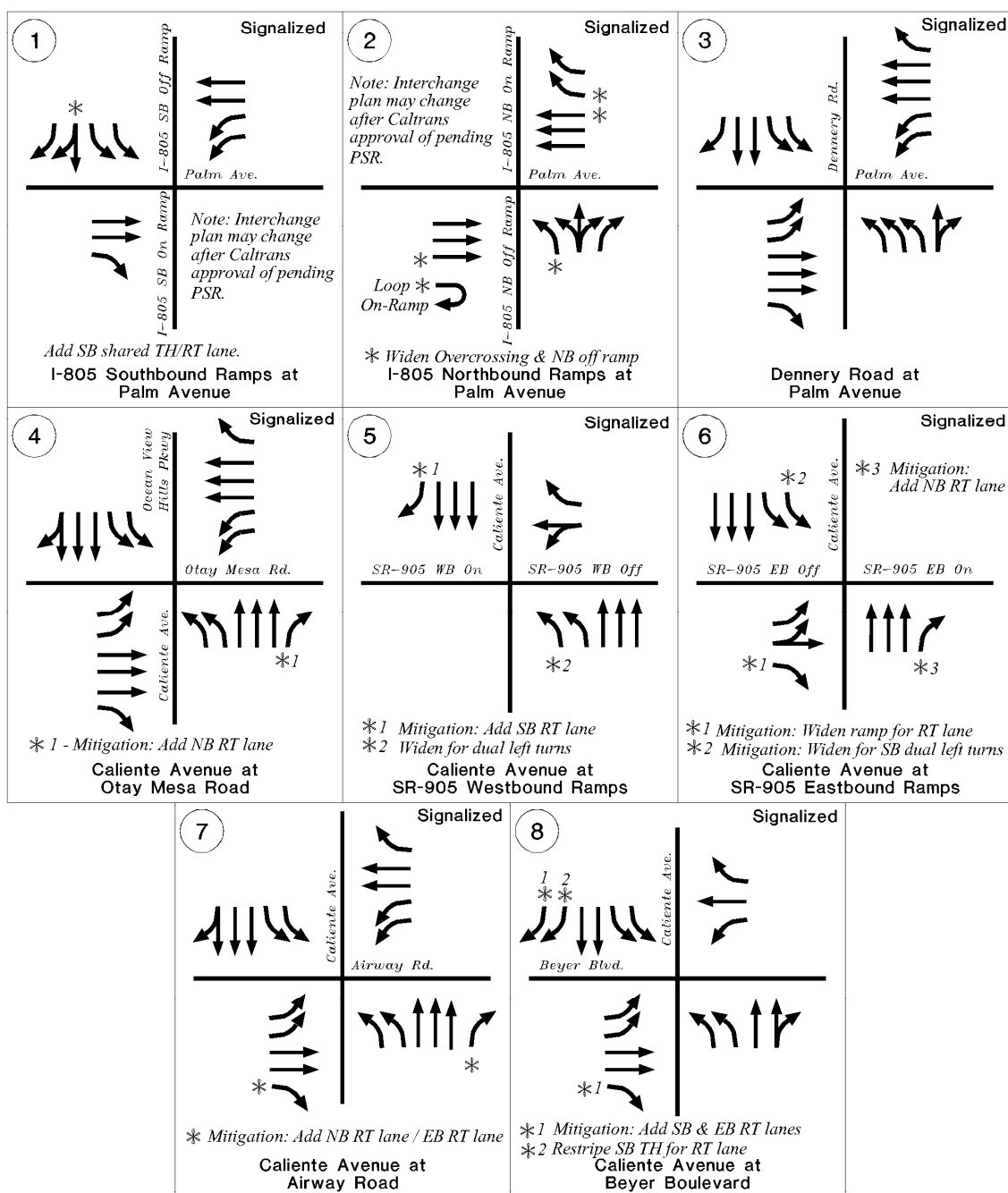


FIGURE ES-III-3
Buildout Recommended Lane Configurations - Alternative 3-B
Without La Media Road (With Mitigation)

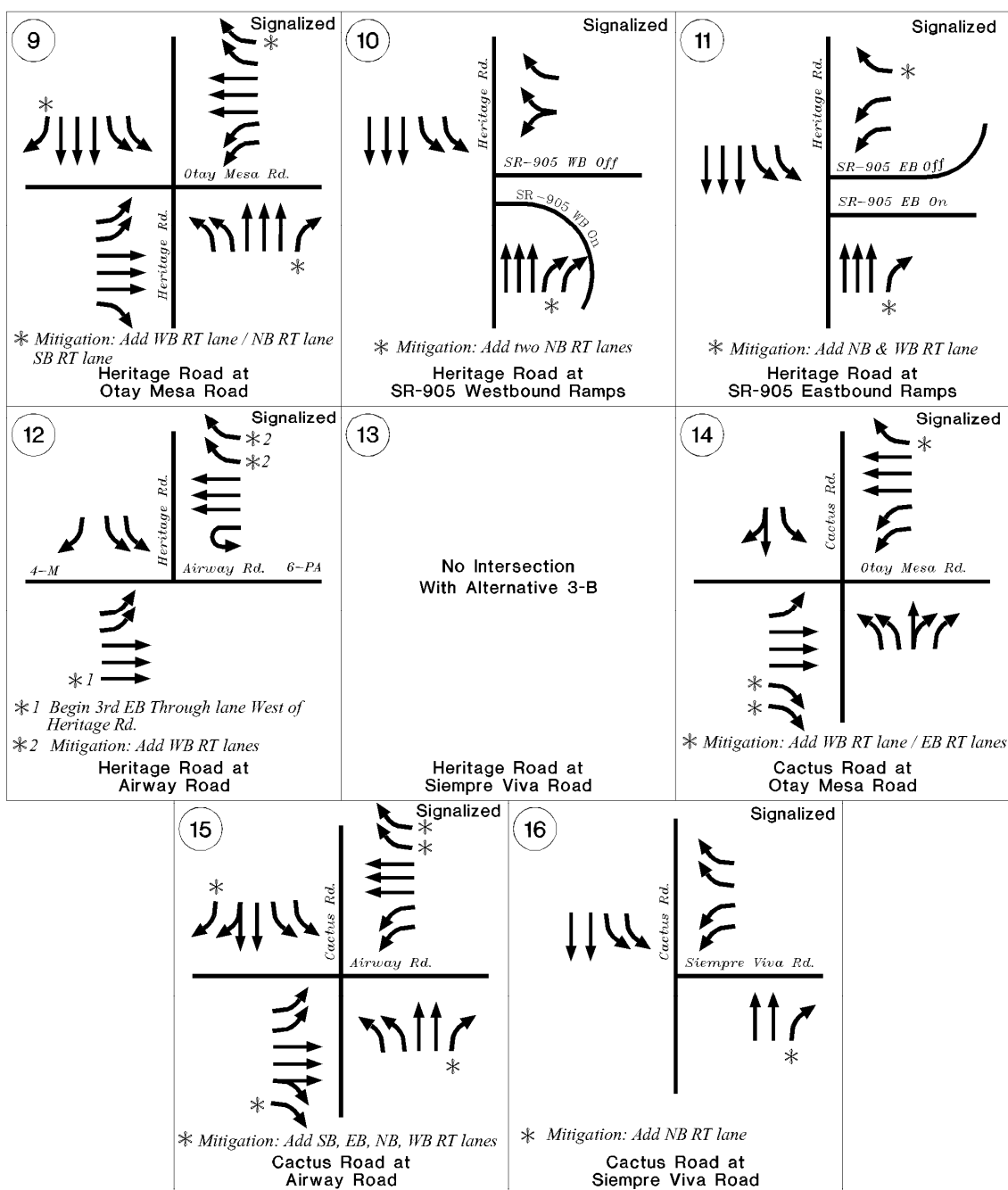


FIGURE ES-III-3
Buildout Recommended Lane Configurations - Alternative 3-B
Without La Media Road (With Mitigation)

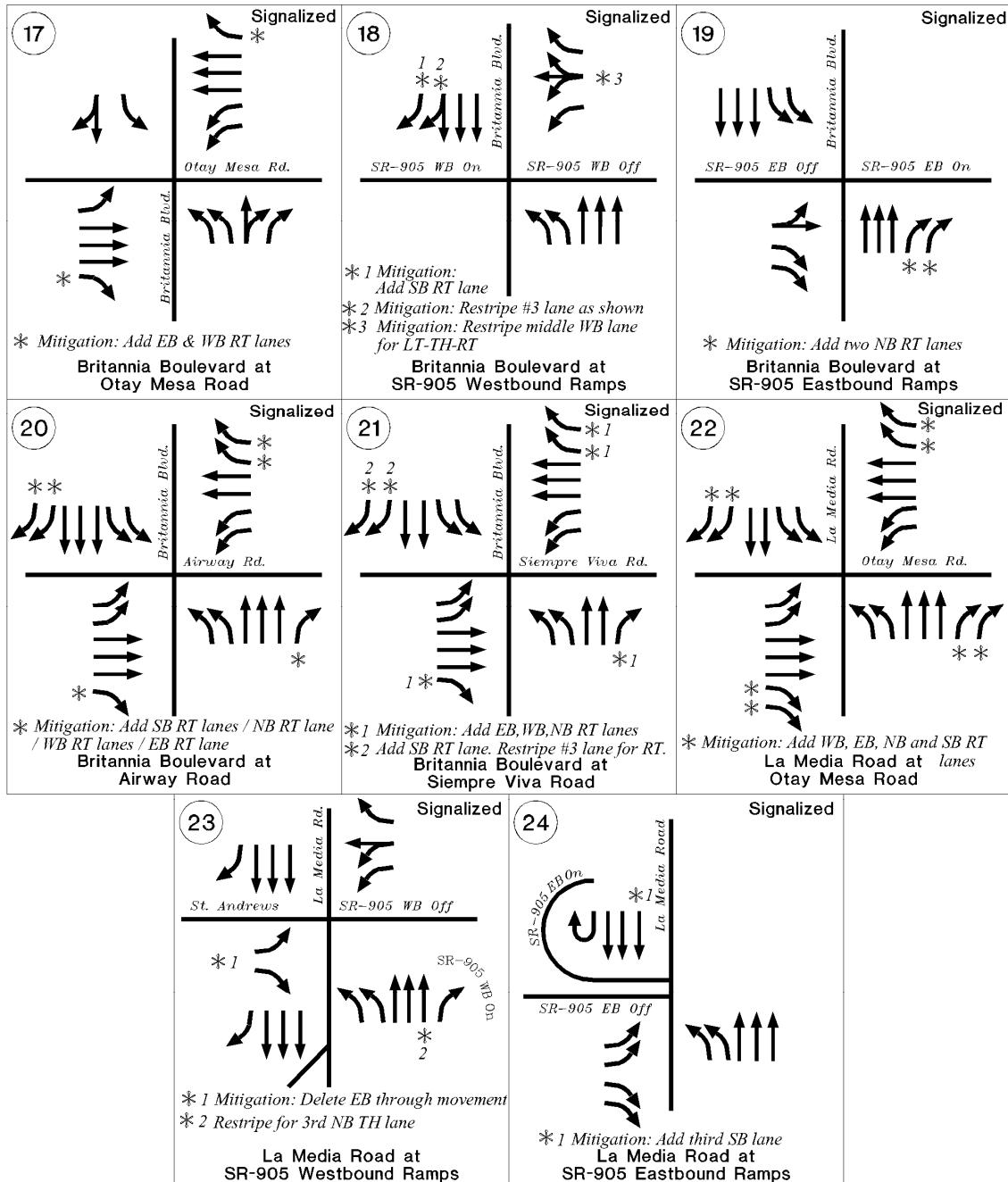


FIGURE ES-III-3
Buildout Recommended Lane Configurations - Alternative 3-B
Without La Media Road (With Mitigation)

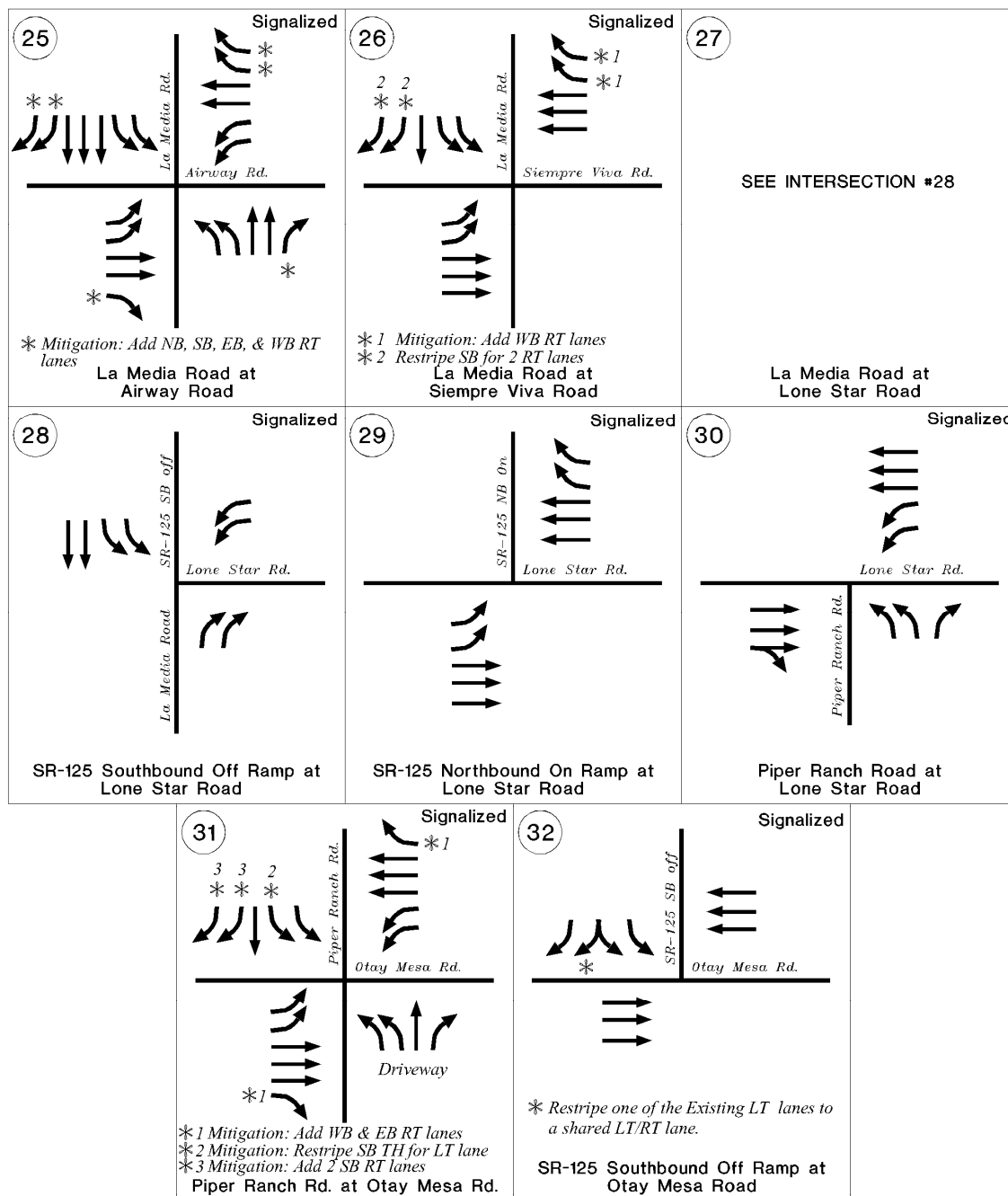


FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

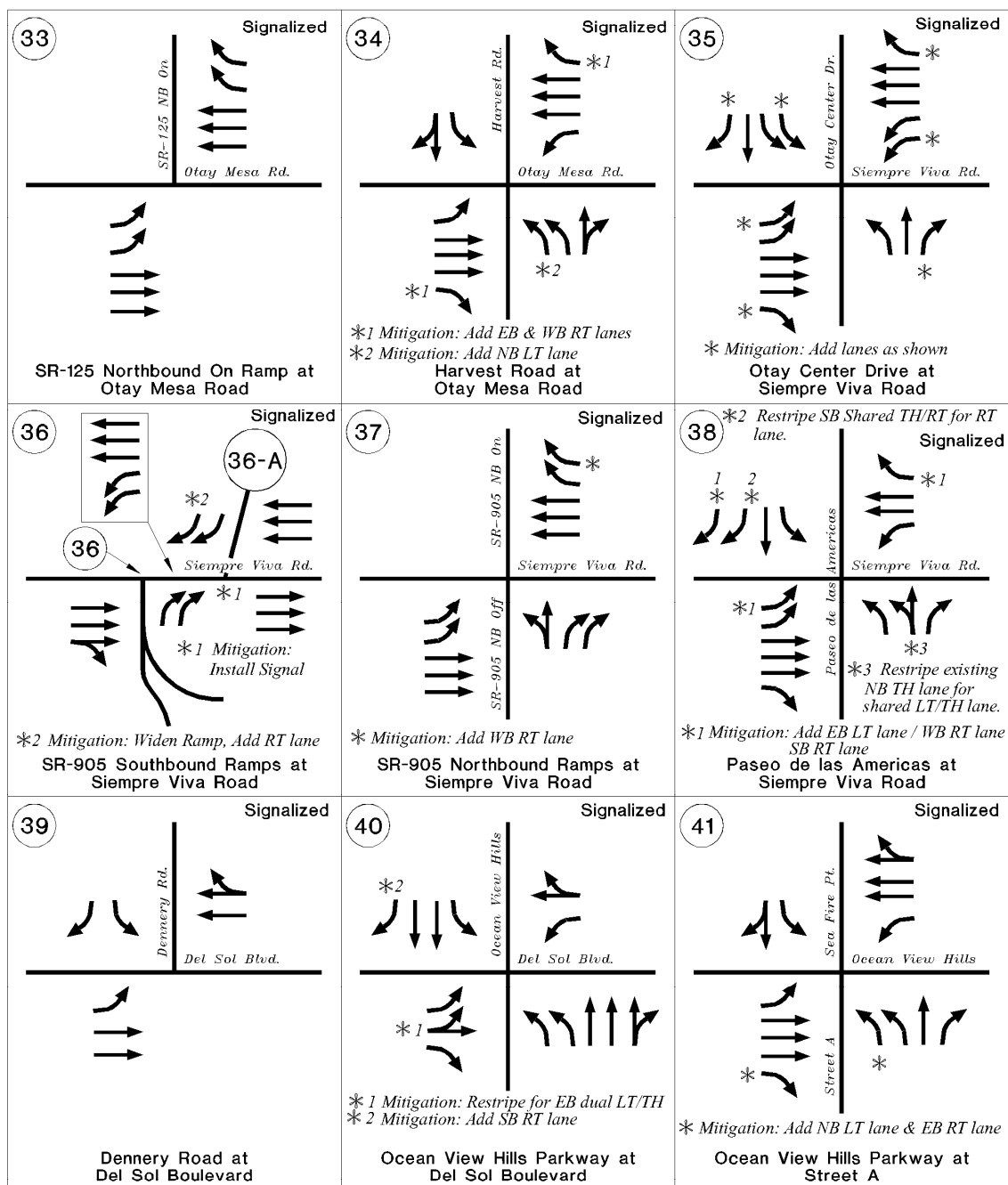


FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B Without La Media Road (With Mitigation)

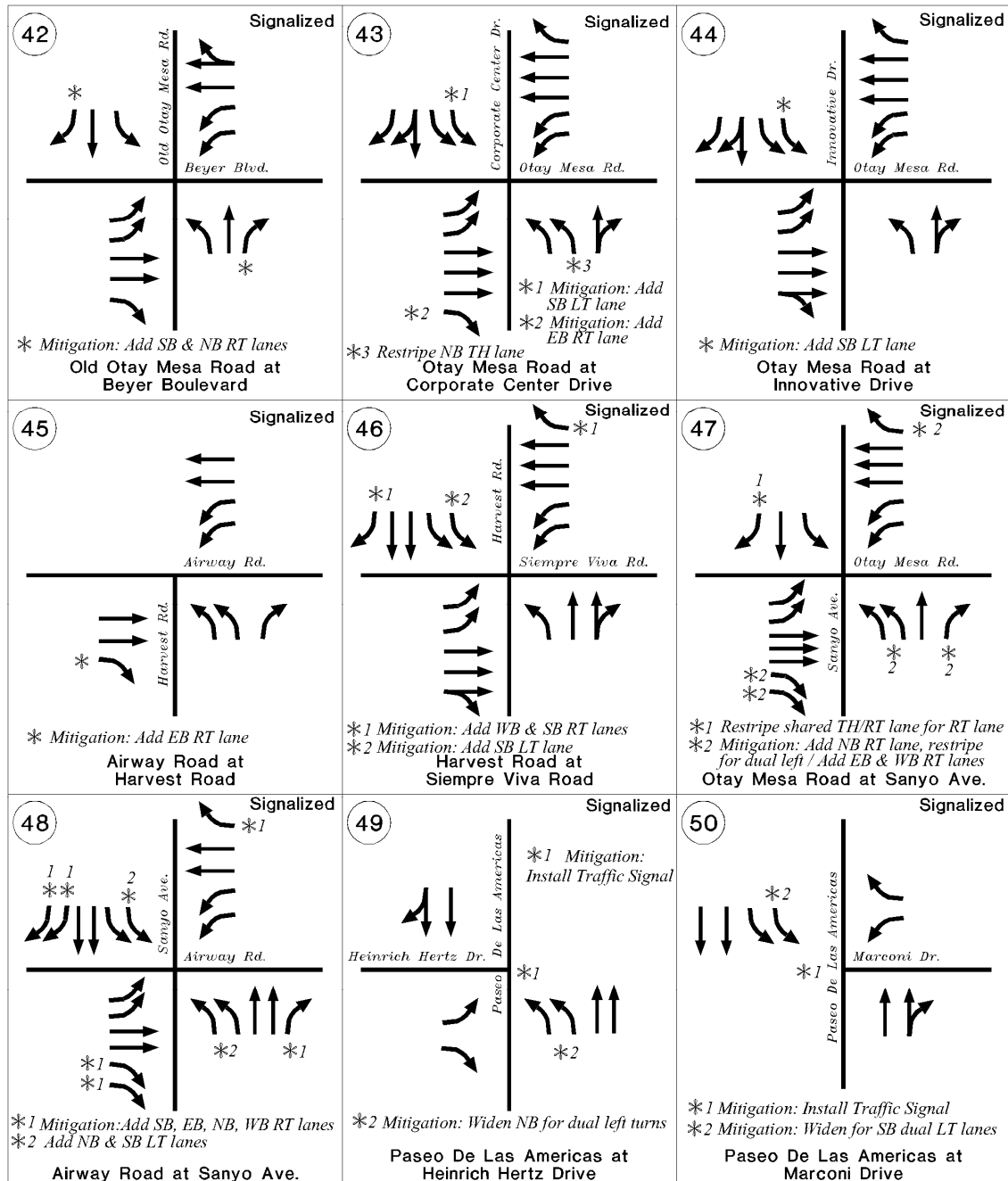


FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B Without La Media Road (With Mitigation)

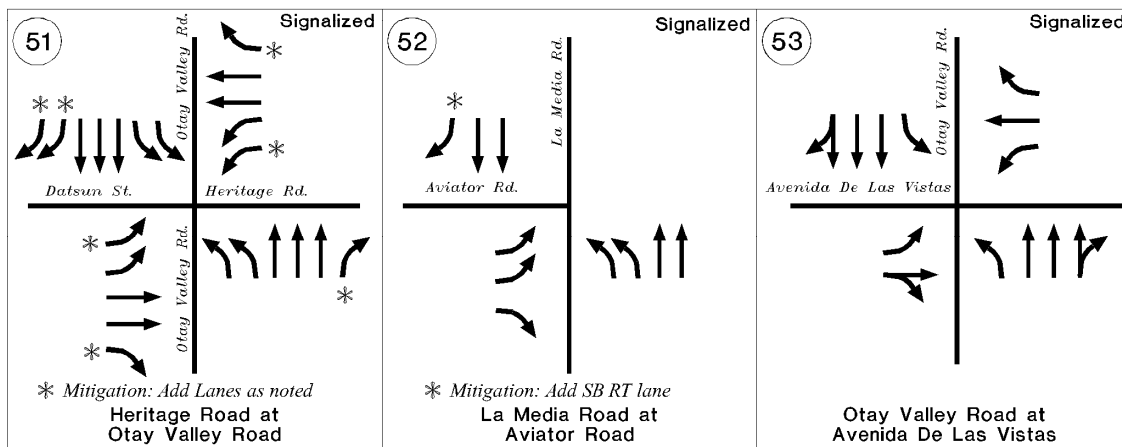


FIGURE ES-III-3
Buildout Recommended Lane Configurations - Alternative 3-B
Without La Media Road (With Mitigation)

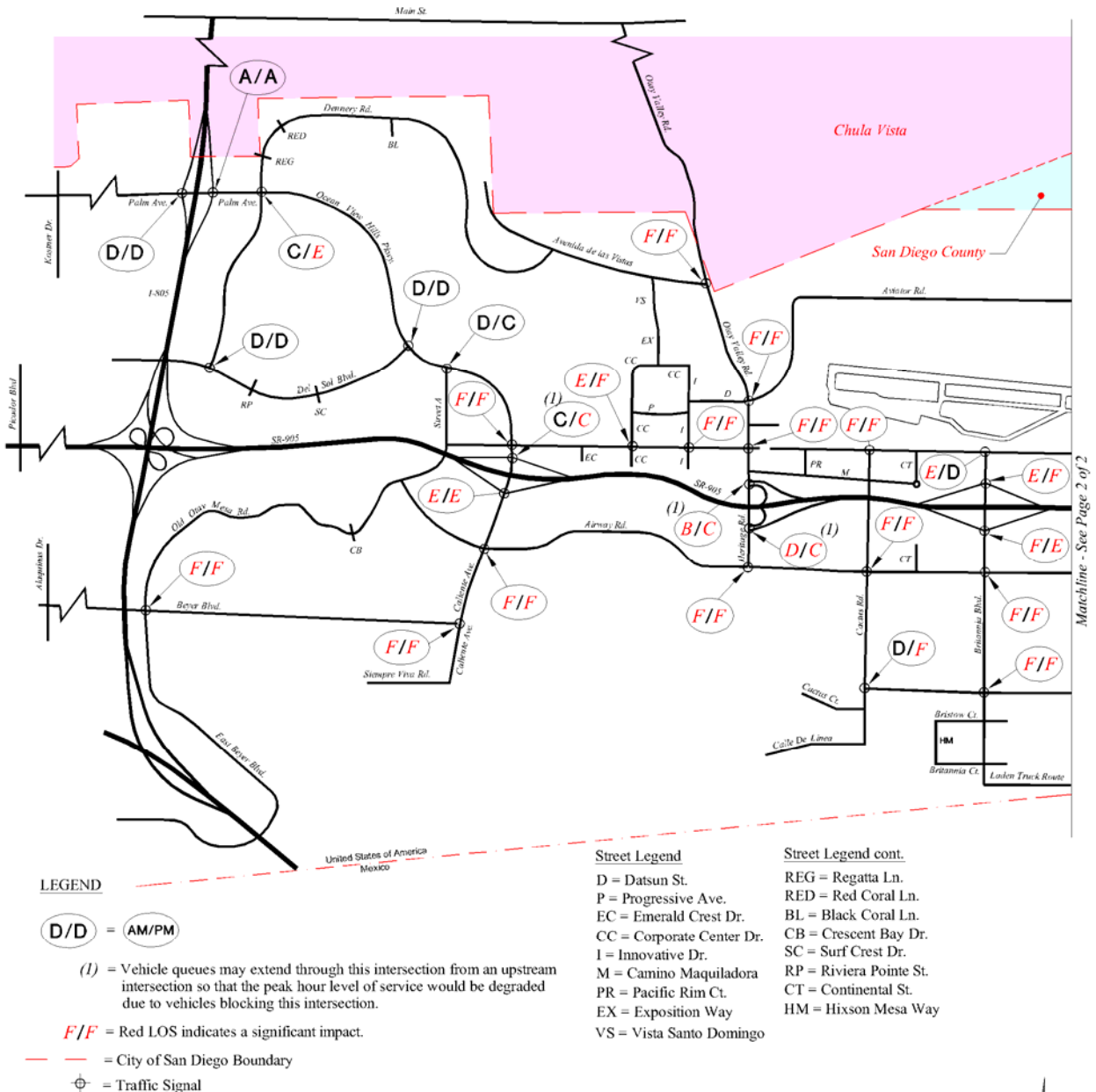
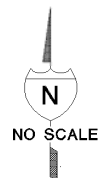


FIGURE ES - III -4
Buildout 3B Without La Media Road Scenario
Intersection Levels of Service (With Mitigation)



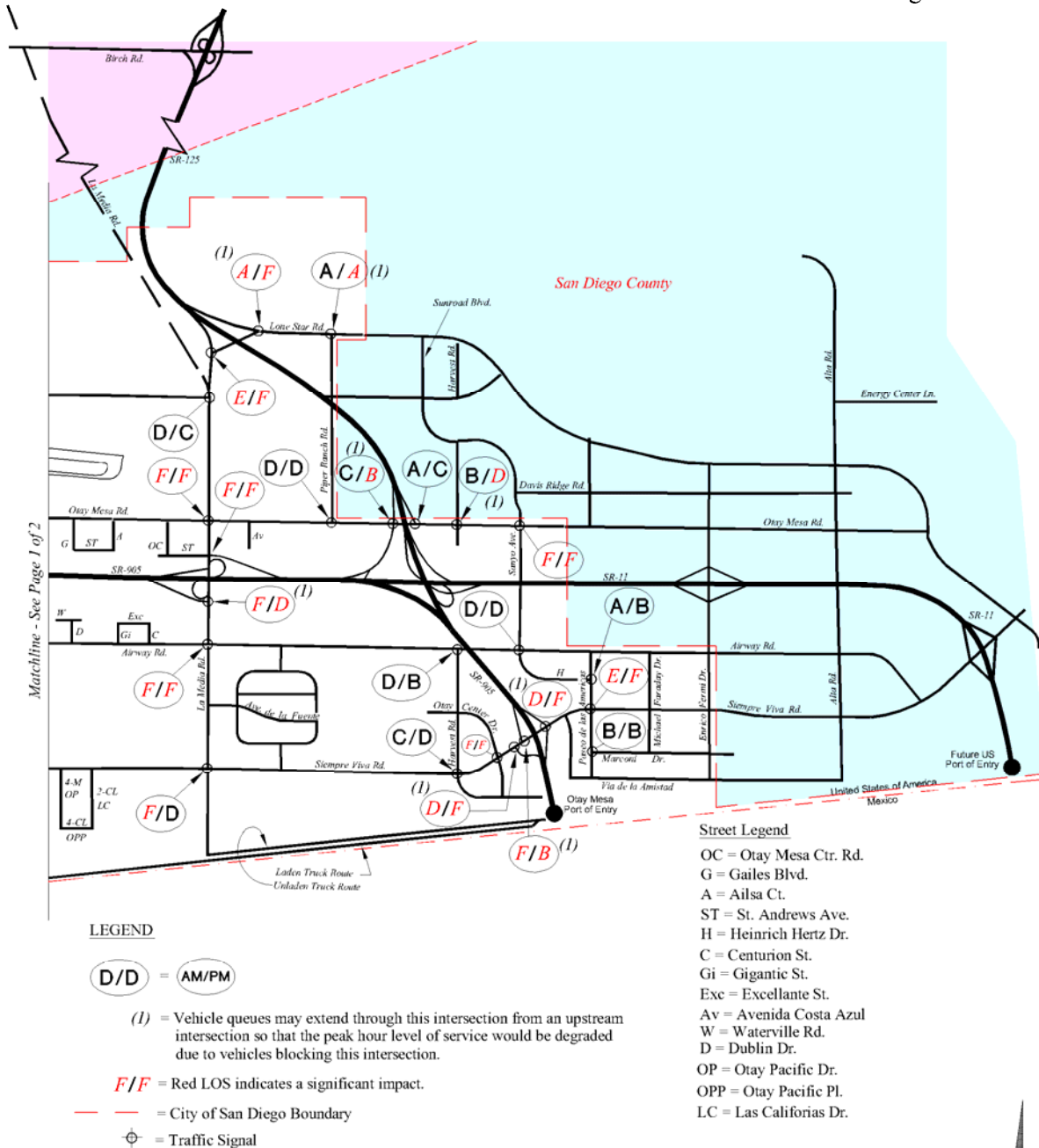
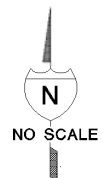


FIGURE ES - III -4
Buildout 3B Without La Media Road Scenario
Intersection Levels of Service (With Mitigation)



A comparison of the Buildout 3B Without La Media Road Scenario significantly impacted intersections after mitigation to the Adopted Community Plan Scenario is provided below, based on the listing of remaining significantly impacted intersections shown in **Table III-7**.

The 3B Without La Media Road Scenario has 34 intersections during the AM peak hour and 37 during the PM peak hour that would remain significantly impacted after mitigation.

The Adopted Community Plan Scenario has 42 intersections during the AM peak hour and 44 during the PM peak hour that would remain significantly impacted after mitigation.

The following 36 intersections would remain significantly impacted under both scenarios:

- Palm Avenue / Dennerly Road (PM);
- Otay Mesa Road / Caliente Avenue (AM & PM);
- Caliente Avenue / SR-905 WB Ramps (AM & PM);
- Caliente Avenue / SR-905 EB Ramps (AM & PM);
- Caliente Avenue / Airway Road (AM & PM);
- Caliente Avenue / Siempre Viva Road (AM & PM);
- Otay Mesa Road / Heritage Road (AM & PM);
- Heritage Road / SR-905 WB Ramps (AM & PM);
- Heritage Road / SR-905 EB Ramps (AM & PM);
- Heritage Road / Airway Road (AM & PM);
- Otay Mesa Road / Cactus Road (AM & PM);
- Airway Road / Cactus Road (AM & PM);
- Siempre Viva Road / Cactus Road (PM);
- Otay Mesa Road / Britannia Boulevard (AM);
- Britannia Boulevard / SR-905 WB Ramps (AM & PM);

TABLE ES III-7

Comparison Of Buildout 3B Without La Media Road To Buildout Adopted Community Plan Intersection Significant Impacts After Mitigation

		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Intersection		LOS	LOS	LOS	LOS
1	Palm Ave. / I-805 SB Ramps	D	E	C	D
2	Palm Ave. / I-805 NB Ramps	A	(1) A	A	A
3	Palm Ave. / Dennerly Rd.	D	E	C	E
4	Otay Mesa Rd. / Caliente Ave.	F	F	F	F
5	Caliente Ave. / SR-905 WB Ramps	E	E	(1) C	(1) C
6	Caliente Ave. / SR-905 EB Ramps	F	E	E	E
7	Caliente Ave. / Airway Rd.	F	F	F	F
8	Caliente Ave. / Siempre Viva Rd.	F	F	F	F
9	Otay Mesa Rd. / Heritage Rd.	F	F	F	F
10	Heritage Rd. / SR-905 WB Ramps	B	B	(1) B	(1) C
11	Heritage Rd. / SR-905 EB Ramps	(1) D	(1) D	(1) D	(1) C
12	Heritage Rd. / Airway Rd.	F	F	F	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	F	F	F	F
15	Airway Rd. / Cactus Rd.	F	F	F	F
16	Siempre Viva Rd. / Cactus Rd.	F	F	D	F
17	Otay Mesa Rd. / Britannia Blvd.	(1) C	(1) D	E	D
18	Britannia Blvd. / SR-905 WB Ramps	(1) D	F	E	F
19	Britannia Blvd. / SR-905 EB Ramps	F	F	F	E
20	Britannia Blvd. / Airway Rd.	F	F	F	F
21	Siempre Viva Rd. / Britannia Blvd.	F	F	F	F
22	Otay Mesa Rd. / La Media Rd.	F	F	F	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact

TABLE ES III-7 (Continued)

**Comparison Of
Buildout 3B Without La Media Road To
Buildout Adopted Community Plan
Intersection Significant Impacts After Mitigation**

Intersection		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		LOS	LOS	LOS	LOS
23	La Media Rd. / SR-905 WB Ramps	F	F	F	F
24	La Media Rd. / SR-905 EB Ramps	F	F	F	(1) D
25	La Media Rd. / Airway Rd.	F	F	F	F
26	La Media Rd. / Siempre Viva Rd.	F	F	F	D
27	La Media Rd. / Lone Star Rd.	F	F	N/A	N/A
28	Lone Star Rd. / SR-125 SB Off Ramp	(1) D	(1) B	E	F
29	Lone Star Rd. / SR-125 NB On Ramp	(1) A	(1) A	(1) A	F
30	Lone Star Rd. / Piper Ranch Rd.	D	B	A	(1) A
31	Otay Mesa Rd. / Piper Ranch Rd.	F	F	D	D
32	Otay Mesa Rd. / SR-125 SB Off Ramp	(1) B	A	C	(1) B
33	Otay Mesa Rd. / SR-125 NB On Ramp	(1) A	B	A	C
34	Otay Mesa Rd. / Harvest Rd.	C	(1) D	B	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	F	F	F	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	F	F	(1) C	F
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	F	(1) D	F	(1) B
37	Siempre Viva Rd. / SR-905 NB Ramps	F	F	(1) D	F
38	Siempre Viva Rd. / Paseo de las Americas	F	F	E	F
39	Dennery Rd. / Del Sol Blvd.	F	E	D	D
40	Ocean View Hills Pkwy. / Del Sol Blvd.	E	F	D	D
41	Ocean View Hills Pkwy. / Street A	D	D	D	C
42	Old Otay Mesa Rd. / Beyer Blvd.	D	D	F	F
43	Otay Mesa Rd. / Corporate Center Dr.	F	F	E	F
44	Otay Mesa Rd. / Innovative Dr.	F	D	F	F

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

TABLE ES III-7 (Continued)

**Comparison Of
Buildout 3B Without La Media Road To
Buildout Adopted Community Plan
Intersection Significant Impacts After Mitigation**

		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Intersection		LOS	LOS	LOS	LOS
45	Harvest Rd. / Airway Rd.	D	F	D	B
46	Harvest Rd. / Siempre Viva Rd.	F	F	C	D
47	Otay Mesa Rd. / Sanyo Ave.	F	F	F	F
48	Airway Rd. / Sanyo Ave.	F	F	D	D
49	Paseo de las Americas / Heinrich Hertz Dr.	B	B	A	B
50	Paseo de las Americas / Marconi Dr.	A	E	B	B
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	F	F	F	F
52	Aviator Rd. / La Media Rd.	F	D	C	B
53	Otay Valley Rd. / Avenida De Las Vistas	F	F	F	F

Legend

F = Shading indicates a significant impact.

- Britannia Boulevard / SR-905 EB Ramps (AM & PM);
- Britannia Boulevard / Airway Road (AM & PM);
- Siempre Viva Road / Britannia Boulevard (AM & PM);
- Otay Mesa Road / La Media Road (AM & PM);
- La Media Road / SR-905 WB Ramps (AM & PM);
- La Media Road / SR-905 EB Ramps (AM);
- La Media Road / Airway Road (AM & PM);
- La Media Road / Siempre Viva Road (AM);
- Lone Star Road / SR-125 SB Off Ramp (PM);
- Lone Star Road / SR-125 NB On Ramp (PM);
- Otay Mesa Road / Harvest Road (PM);
- Siempre Viva Road / Otay Center Drive (AM & PM);
- Siempre Viva Road / SR-905 SB to EB Ramp(PM);
- Siempre Viva Road / SR-905 SB to WB Ramp (AM & PM);
- Siempre Viva Road / SR-905 NB Ramps (PM);
- Siempre Viva Road / Paseo de las Americas (AM & PM);
- Otay Mesa Road / Corporate Center Drive (AM & PM);
- Otay Mesa Road / Innovative Drive (AM);
- Otay Mesa Road / Sanyo Avenue (AM & PM);
- Heritage Road / Otay Valley Road / Datsun Street (AM & PM);
- Otay Valley Road / Avenida De Las Vistas (AM & PM).

The following 11 intersections would remain significantly impacted under the Adopted Community Plan Scenario, but not the 3B Without La Media Road Scenario:

- Palm Avenue / I-805 SB Ramps;
- Palm Avenue / I-805 NB Ramps;
- Otay Mesa Road / SR-125 NB On-Ramp;
- Otay Mesa Road / Piper Ranch Road;
- Dennery Road / Del Sol Boulevard;
- Ocean View Hills Parkway / Del Sol Boulevard;
- Harvest Road / Airway Road;
- Harvest Road / Siempre Viva Road;
- Airway Road / Sanyo Avenue;
- Paseo de las Americas / Marconi Drive;
- Aviator Road / La Media Road.

The following three intersections would remain significantly impacted under the 3B Without La Media Road Scenario, but not the Adopted Community Plan Scenario:

- Heritage Road / SR-905 WB Ramps;
- Lone Star Road / Piper Ranch Road;
- Old Otay Mesa Road / Beyer Boulevard.

Ramp Meters

There are currently no freeway on-ramp traffic metering signals in operation at the 14 locations evaluated. Future freeway on-ramp meter operations were evaluated for the 3B Without La Media Road scenario at the fourteen future on-ramp meters. The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

The City of San Diego Traffic Impact Study Manual and the Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service do not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. The 14 future ramp meters were evaluated for the AM and PM peak hours. Ramp meter delays above 15 minutes would occur at five ramps during the AM peak hour and 11 ramps during the PM peak hour. Ramp meter delays above 15 minutes would occur during a total of 16 peak hours.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service “E” or “F”. The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (AM and PM);
- SR-905 Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

Figure ES III-5 shows the intersections that would be significantly impacted by ramp meter delays.

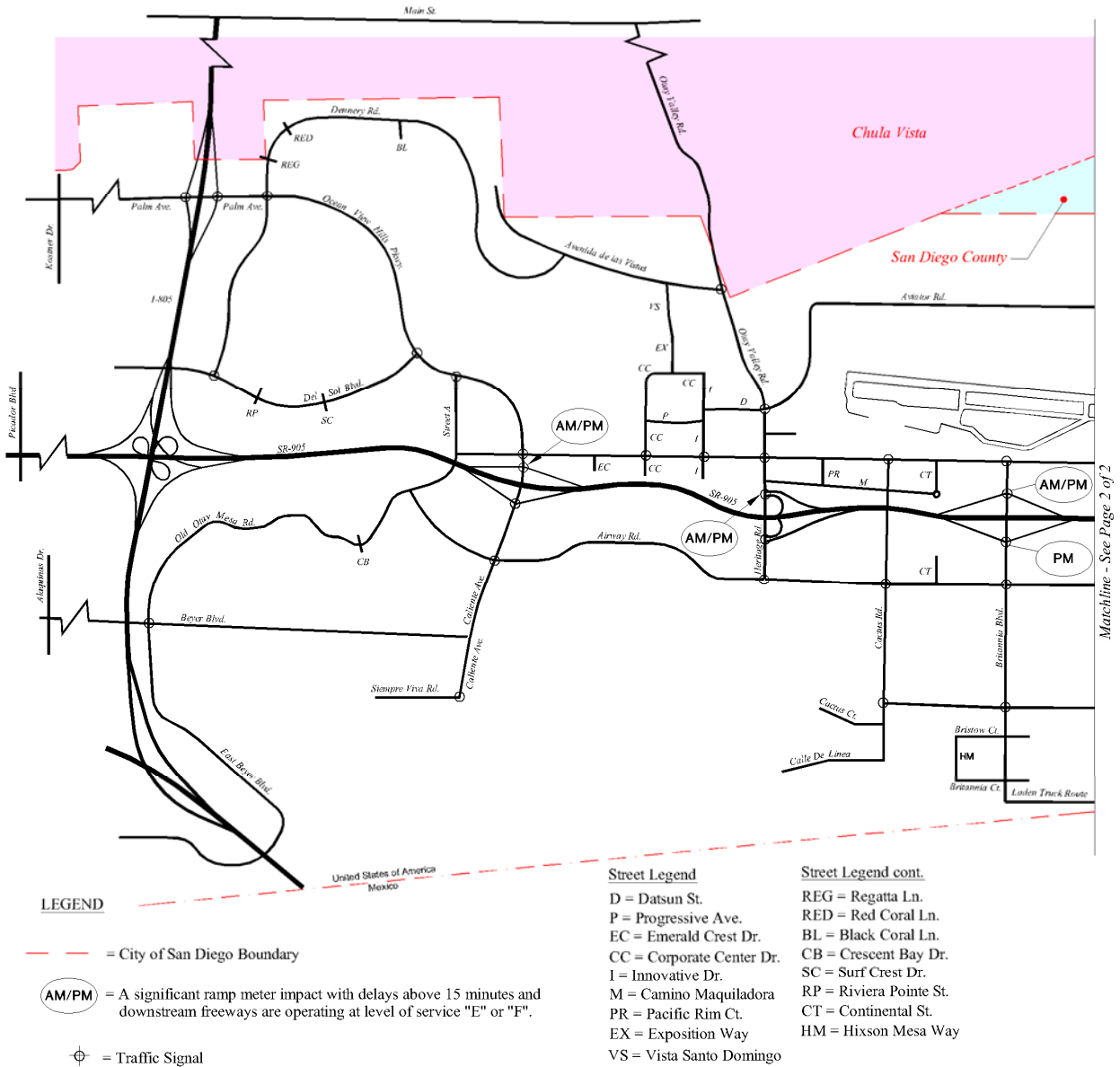
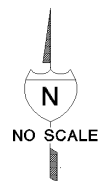


FIGURE ES - III -5
Buildout 3B Without La Media Road Scenario
Significant Ramp Meter Delays



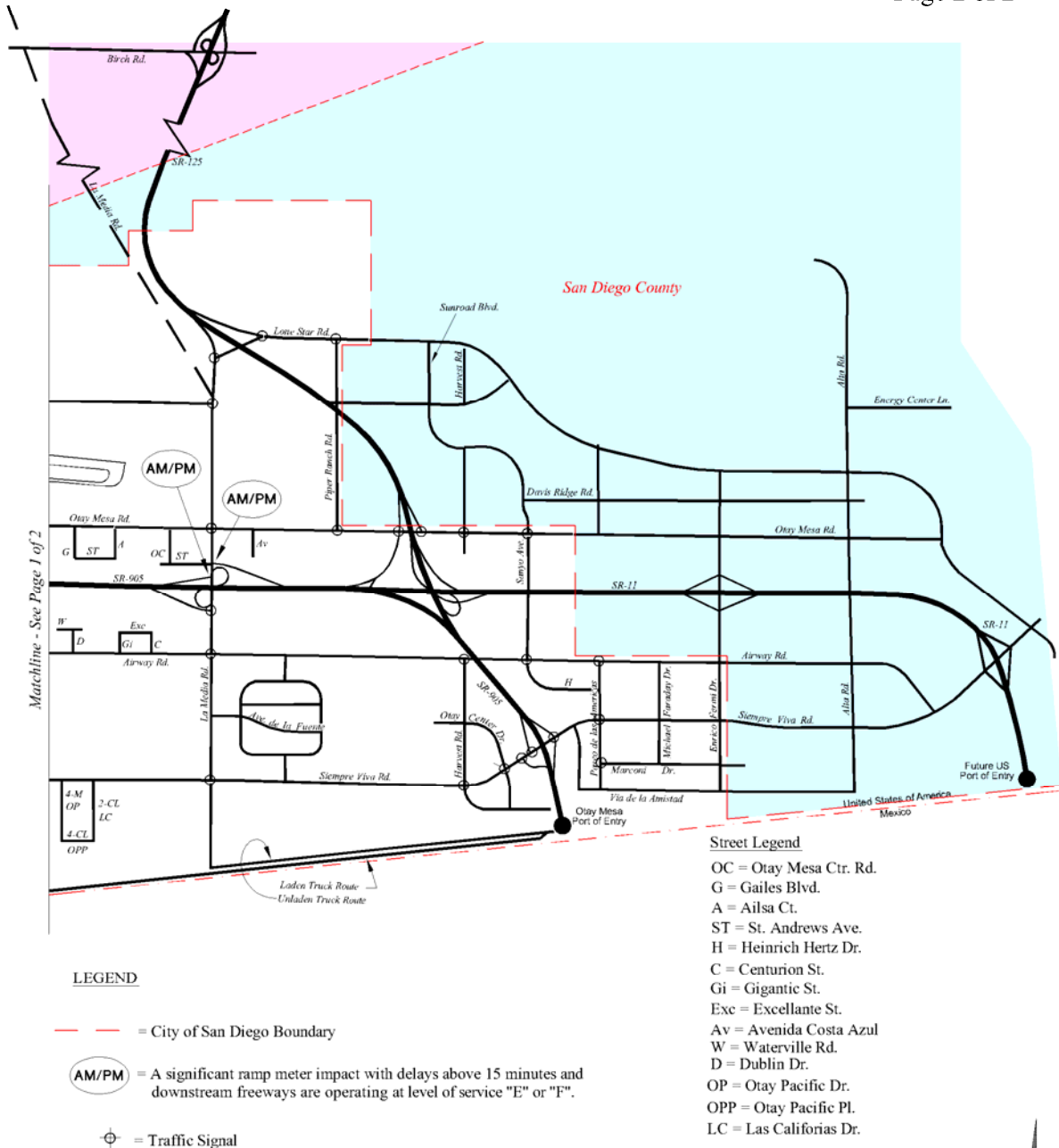


FIGURE ES - III -5
Buildout 3B Without La Media Road Scenario
Significant Ramp Meter Delays



Ramp meter queues are also tabulated. Considering the queues that would exceed the ramp storage length, there are estimated to be 18 times queues would exceed the ramp storage length during the 28 peak hours evaluated, at the 11 ramps listed below:

I-805 / Palm Avenue Northbound On-Ramp (From Westbound) (AM and PM);

SR-905 / Caliente Avenue Westbound On-Ramp (AM and PM);

SR-905 / Heritage Road Westbound On-Ramp (AM and PM);

SR-905 / Britannia Boulevard Westbound On-Ramp (AM and PM);

SR-905 / Britannia Boulevard Eastbound On-Ramp (PM);

SR-905 / La Media Road Westbound On-Ramp (AM and PM);

SR-905 / La Media Road Eastbound On-Ramp (PM);

SR-905 / Siempre Viva Road Northbound On-Ramp (AM and PM);

SR-905 / Siempere Viva Road Southbound On-Ramp (PM);

SR-125 / Otay Mesa Road Northbound On-Ramp (AM and PM);

SR-125 / Lone Star Road Northbound On-Ramp (PM).

A comparison of the 3B Without La Media Road land use scenario to the Adopted Community Plan land use scenario indicates the locations would be the same for each scenario, but the peak hours would change with the Adopted Community Plan Scenario as listed below:

- SR-905 / Heritage Road Westbound On-Ramp (PM Only);
- SR-125 / Otay Mesa Road Northbound On-Ramp (PM Only);
- SR-125 / Lone Star Road Northbound On-Ramp (AM & PM).

Freeway Interchange Queues

A queue analysis was prepared at the interchange ramp intersections plus closely spaced adjacent intersections within the study area, without and with the recommended intersection mitigation.

The queue analysis was provided to indicate the locations that might need queue storage enhancements, such as extending right or left turn storage lengths, if feasible, during design and to ensure that any intersection with excessive queues was not report as operating acceptably. The interchange intersections that are designed to operate acceptably, but will have excessive queues due to upstream queues, have been footnoted accordingly in the intersection levels of service tables.

Of the 158 queues evaluated without intersection mitigation, during AM and PM peak hours, 80 are expected to exceed the available vehicle storage between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 188 queues were evaluated and 63 are expected to exceed available storage, extending through the adjacent intersection. **Table ES III-8** lists the locations of the excessive queues.

Figure ES III-6 shows interchange intersection locations that would be affected by excessive queues. Vehicle queues will extend through these intersections from an upstream intersection so that any acceptable peak hour level of service will be at a degraded level of service due to vehicles blocking the intersection.

Table ES III-8

Alternative 3B Without La Media Road

Buildout Queue Analysis With Mitigation

Queue Locations North / South	AM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Southbound			Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	None	None	2,425
Caliente Ave. / SR-905 WB Ramps	35	None	-	155	1135	-
Caliente Ave. / SR-905 EB Ramps	-	None	45	-	395	None
Caliente Ave. / Airway Rd.	None	50	1,273	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	510
Heritage Rd. / SR-905 WB Ramps	-	None	None	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	None	None	-	893	None
Heritage Rd. / Airway Rd.	None	-	2,225	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	90	185
Britannia Blvd. / SR-905 WB Ramps	None	None	-	805	None	-
Britannia Blvd. / SR-905 EB Ramps	-	710	None	-	None	none
Britannia Blvd. / Airway Rd.	2,100	2,225	895	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	1,183	520	423
La Media Rd. / SR-905 WB Ramps	None	1,120	-	None	None	-
La Media Rd. / SR-905 EB Ramps	None	1,775	-	188	None	-
La Media Rd. / Airway Rd.	470	715	2,375	-	-	-

Queue Locations North / South	PM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Southbound			Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	160	None	None
Caliente Ave. / SR-905 WB Ramps	None	48	-	None	745	-
Caliente Ave. / SR-905 EB Ramps	-	None	None	-	685	None
Caliente Ave. / Airway Rd.	None	1,330	185	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	None	393	-	None	398
Heritage Rd. / SR-905 EB Ramps	-	None	None	-	450	None
Heritage Rd. / Airway Rd.	None	-	2,425	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	None	None
Britannia Blvd. / SR-905 WB Ramps	None	None	-	6,975	None	-
Britannia Blvd. / SR-905 EB Ramps	-	None	None	-	1,725	None
Britannia Blvd. / Airway Rd.	None	None	330	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	340	None	150
La Media Rd. / SR-905 WB Ramps	None	2,125	-	None	None	-
La Media Rd. / SR-905 EB Ramps	None	410	-	263	None	-
La Media Rd. / Airway Rd.	None	None	None	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

■ = Shading indicates excess queue.

Table ES III-8

Alternative 3B Without La Media Road

Buildout Queue Analysis With Mitigation

Queue Locations East / West	AM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennerly Rd.	None	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	None	2,350	1,298
Siempre Viva Rd. / SR-905 SB Ramps	-	383	-	None	-	None
Siempre Viva Rd. / SR-905 NB Ramps	-	None	143	-	None	180
Siempre Viva Rd. / Paseo de las Americas	1,020	None	None	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	None	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	50	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	None	None	-	None	None
Otay Mesa Rd. / Harvest Rd.	None	None	None	-	-	-

Queue Locations East / West	PM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennerly Rd.	1,383	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	None	15	None
Siempre Viva Rd. / SR-905 SB Ramps	-	3,375	-	835	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	None	3,825	-	None	1,750
Siempre Viva Rd. / Paseo de las Americas	None	None	None	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	508	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	1,615	-	None	2,150
Lone Star Rd. / Piper Ranch Rd.	-	None	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	None	225	-	None	618
Otay Mesa Rd. / Harvest Rd.	None	None	None	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

■ = Shading indicates excess queue.

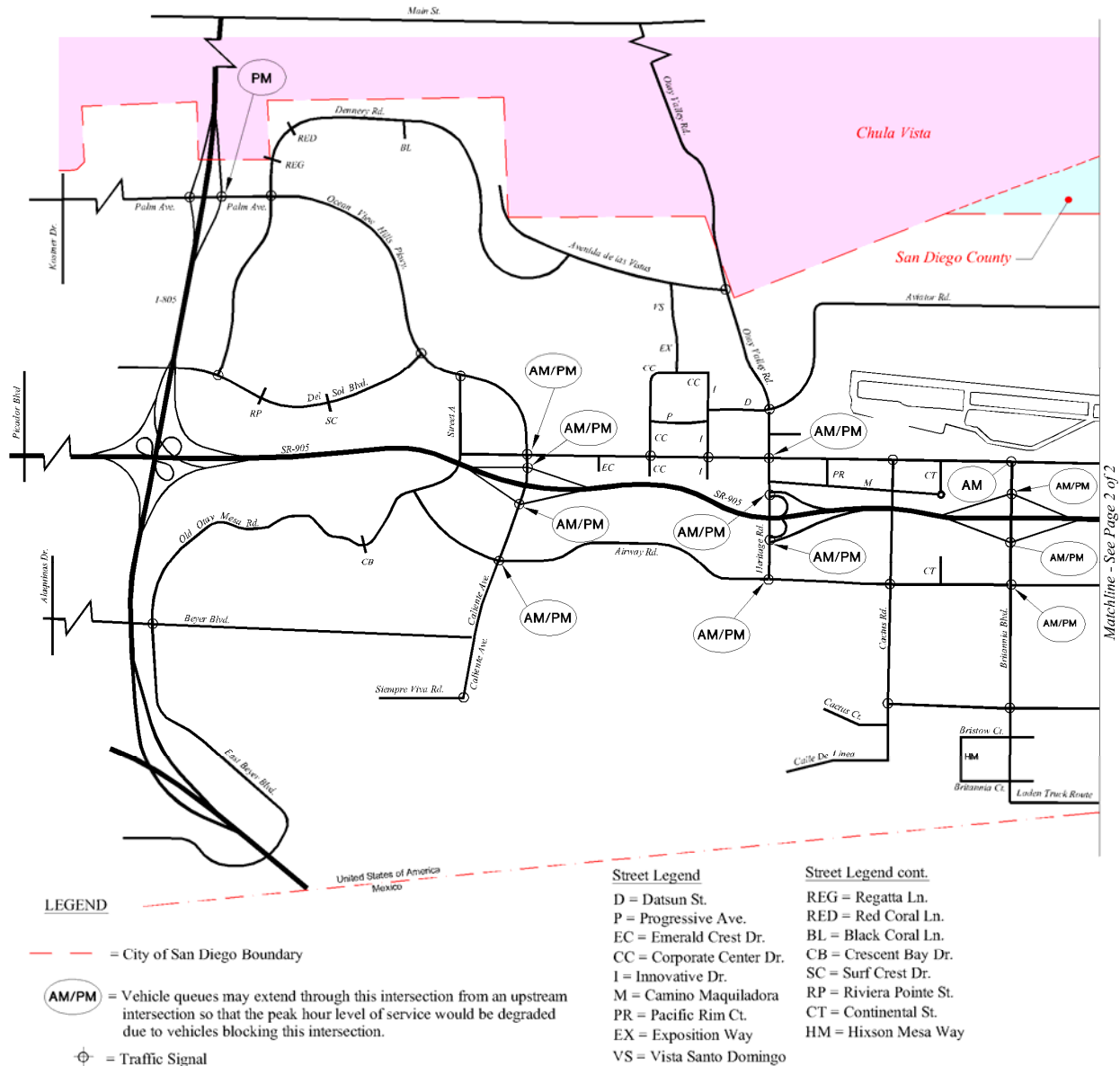
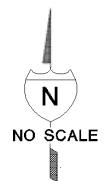


FIGURE ES - III -6
Buildout 3B Without La Media Road Scenario
Interchange and Adjacent Intersection Queueing Impacts



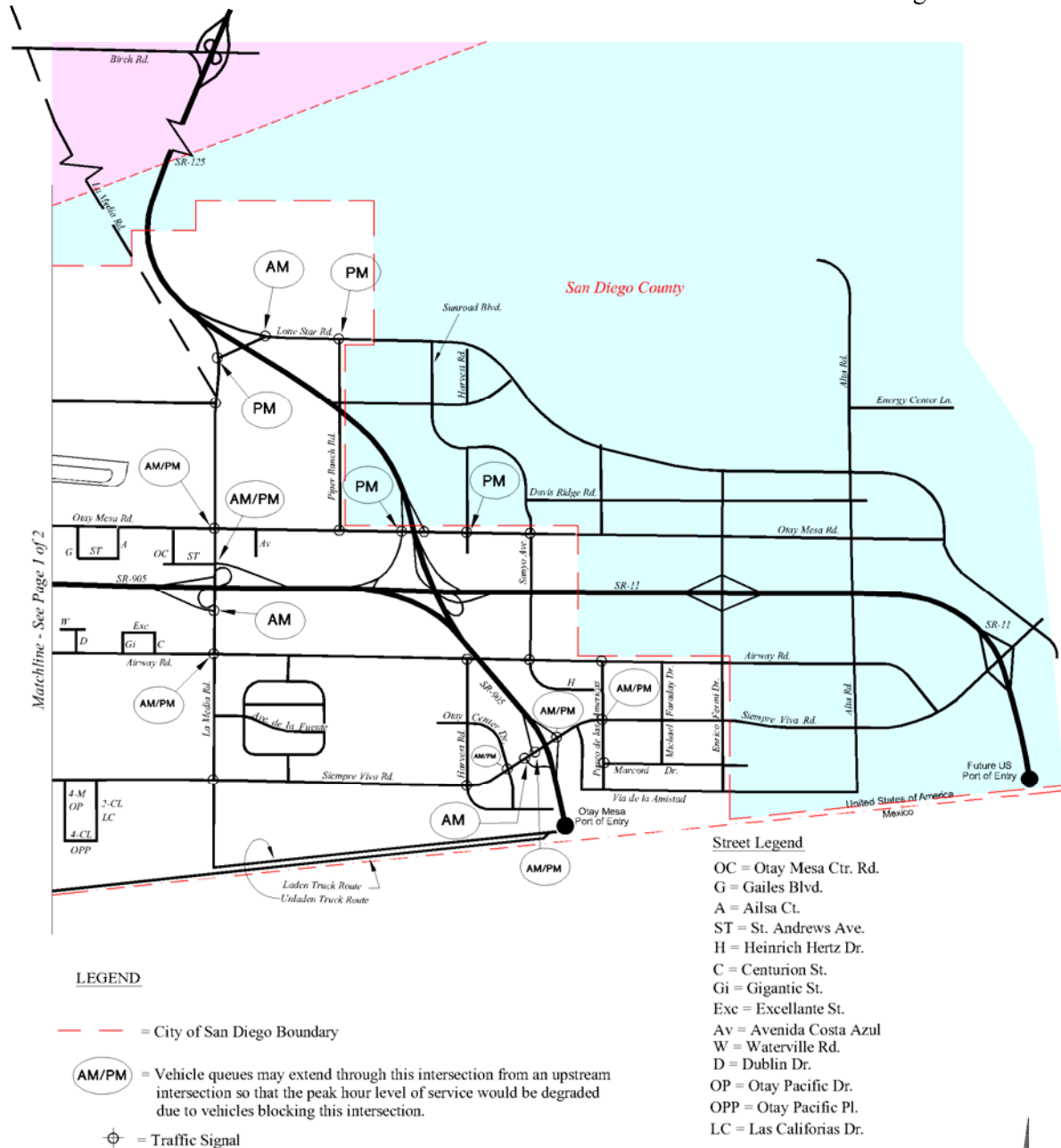


FIGURE ES - III -6
Buildout 3B Without La Media Road Scenario
Interchange and Adjacent Intersection Queueing Impacts

1.0 INTRODUCTION

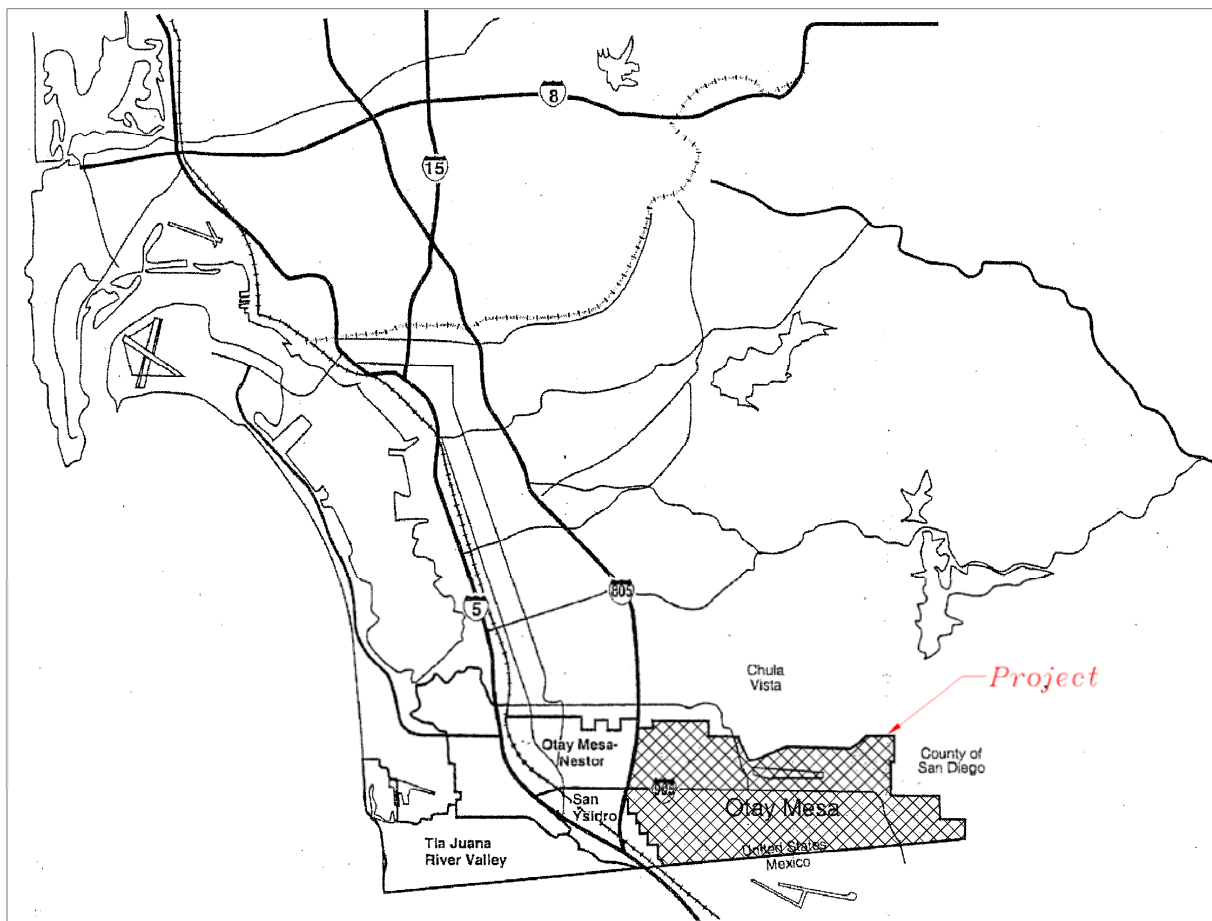
The City of San Diego is responsible for transportation planning activities related to all dedicated, non-freeway facilities within San Diego City limits. The Mobility Planning Section identifies future travel demand for both urbanized and urbanizing communities in an ongoing effort to ensure an adequate circulation system for future development.

A community plan is a comprehensive plan for development which consists of many elements such as land use, open space, public facilities, and mobility. This Traffic Study is the supporting documentation for the Mobility Element of the Otay Mesa Community Plan. This Study identifies the roadway network throughout the community necessary to accommodate traffic generated by existing and future land uses on the street system.

Otay Mesa is bounded by the city Chula Vista to the north, the Mexican border to the south, Interstate 805 to the west and the San Diego County limits to the east. **Figure 1-1** shows the Otay Mesa vicinity map.

Much of the land in Otay Mesa is undeveloped. The current land use is primarily residential on the western portion of the community and industrial on the eastern portion. A significant amount of land is dedicated to the Multiple Species Conservation Program (MSCP). Private parties have also purchased land in Otay Mesa as mitigation for their development projects elsewhere.

The border crossing between the U.S. and Mexico is located at the southeast corner of Otay Mesa and where State Route 905 terminates. A second border crossing facility also exists east of Enrico Fermi Drive. This point of entry is primarily used by commercial truck traffic that is predominant throughout the community.



SOURCE

Base Map Provided By:
City of San Diego Planning Department
Otay Mesa Existing Conditions Report



FIGURE 1-1
Project Location Map

2.0 IMPACT ANALYSIS

2.1 Forecast Model

The travel forecast model used for this traffic study was calibrated in Otay Mesa from the San Diego Association of Governments (SANDAG) Series 11 Regional Transportation Model. The SANDAG model incorporates land use, population, and employment data estimated for the year 2030 in the future. Land uses within the Otay Mesa Community Planning area are assumed to be built out within the traffic model. The SANDAG regional transportation network includes the future improvements that are in the Adopted Community Plan and are assumed to be completed, and includes Year 2030 Regional Transportation Plan “Reasonably Expected” projects in the region. The Otay Mesa model has been modified to include a half-diamond interchange at SR-125 / Lone Star Road. Also, a portion of SR-125 has been assumed as a toll facility and modeled to approximate toll conditions.

2.2 Study Area

The study area is defined by the Otay Mesa Community Plan area boundaries and extends to those areas immediately outside the Community Plan boundary to roads that are common to other jurisdictions such as the City of Chula Vista to the north and the County of San Diego to the east.

Intersections within the Otay Mesa Community Plan boundary identified for evaluation are based on the following criteria:

- 1) Any new/future major intersections (not existing today);
- 2) All freeway on/off ramps;
- 3) All intersections adjacent to freeway on/off ramps;
- 4) Intersections of arterial and major circulation element roadways.

2.3 Methodologies

The following describes the analytical techniques used to derive study findings, conclusions, and recommendations. These evaluations were performed in accordance with Caltrans and City of San Diego requirements. Definitions of level of service, peak traffic hours, and detailed information on roadway segments and intersection analysis methods, standards, and thresholds are discussed in the following sections.

2.3a Roadway Segment Level of Service Standards

The roadway level of service standards and thresholds the City of San Diego incorporates within its jurisdiction provide the basis for analyzing arterial roadway segment performance. The analysis of roadway segment level of service is based on the functional classification of the roadway, the maximum desirable capacity, roadway geometrics, and existing or forecasted average daily traffic (ADT) volumes. **Table 2-1** presents the roadway segment capacity and level of service standards used to analyze arterial roadways.

These standards are generally used as long-range planning guidelines to determine the functional classifications of roadways. The actual capacity of roadway facilities can vary due to a number of actual characteristics including, but not limited to, pavement width, access to cross streets and driveways, intersection signal timing, geometry, and on-street parking. The actual functional capacity is based on the ability of arterial intersections to accommodate peak hour volumes. Level of service D is considered acceptable for roadway segments.

TABLE 2-1
Roadway Classifications, Levels of Service (LOS) and Average Daily Traffic (ADT)

Street Classification	Lanes	LEVEL OF SERVICE				
		A	B	C	D	E
Expressway	6	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6	25,000	35,000	50,000	55,000	60,000
Major Arterial	6	20,000	28,000	40,000	45,000	50,000
Major Arterial	4	15,000	21,000	30,000	35,000	40,000
Collector	4	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) (continuous left turn lane)	4 2	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2	2,500	3,500	5,000	6,500	8,000
Collector (multi-family)	2	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2	--	--	2,200	--	--

Approximate recommended ADT based on the City of San Diego Street Design Manual. The volumes and the average daily level of service listed above are only intended as a general planning guideline. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not to carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

2.3b Peak Hour Intersection Level of Service Standards

The analysis of peak hour intersection performance was conducted using the Highway Capacity Manual analysis software program, which uses the “operational analysis” procedure for signalized intersections as defined in the Highway Capacity Manual (HCM). These procedures establish the maximum saturation flow of a single lane at an intersection. This saturation flow rate is adjusted to account for lane width, on-street parking, conflicting pedestrian flow, traffic composition (i.e., percent of trucks) and shared lane movements (e.g., through and right-turn movements from the same lane). Level of service for signalized intersections is based on the average time (seconds) that vehicles entering an intersection are delayed by intersection controls. **Table 2-2** lists the HCM level of service/delay criteria for signalized intersections.

TABLE 2-2
Signalized Intersection Level of Service

The operational analysis method for evaluation of signalized intersections presented in the 2000 Highway Capacity Manual defines level of service in terms of delay, or more specifically, average control delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption, and lost travel time.

Average Control Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10.0	LOS A describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
10.1-20.0	LOS B describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
20.1-35.0	LOS C describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
35.1-55.0	LOS D describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
55.1-80.0	LOS E is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0s	LOS F describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: 2000 Highway Capacity Manual, TRB Special Report 209

2.3c Impact Significance Criteria

For program level traffic analysis, a project is considered to generate a significant impact if intersections or street segments operate at level of service E or F.

2.3d Freeway Level of Service

Freeway segments were analyzed using standard Caltrans methodologies. The procedures for calculating freeway level of service involved estimating a peak hour volume to capacity (V/C) ratio. Peak hour volumes are estimated from the application of design hour (“K”), directional (“D”) and truck (“T”) factors to Average Daily Traffic (ADT) volumes. The truck factors (percent trucks) were obtained from the historical Caltrans data, local truck counts, and projections of future volumes at the border crossings. The resulting V/C ratio is then compared with accepted ranges of V/C values corresponding to the various levels of service. The corresponding level of service represents an approximation of existing or forecasted freeway operating conditions during the peak hour.

Table 2-3 shows the Freeway segment analysis methods used by Caltrans District 11. As the table shows, Caltrans has developed four levels of freeway congestion within level of service F, ranging from F (0) (considered congestion) to F (3) (gridlock). Any facility operating at level of service E or F is considered to have a significant impact.

TABLE 2-3
Freeway Segment Level of Service Definition

Caltrans District 11			
Freeway Level of Service Definitions			
<i>LOS</i>	<i>V/C</i>	<i>Congestion/Delay</i>	<i>Traffic Description</i>
Used for freeways, expressways, and conventional highways			
A	≤0.41	None	Free Flow
B	0.42-0.62	None	Free to stable flow, light to moderate volumes
C	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver
E	0.93-1.00	Significant	Extremely unstable slow, maneuverability and psychological comfort extremely poor
Used for freeways and expressways			
F0	1.01-1.25	Considerable 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go
F1	1.26-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues
F2	1.36-1.45	Very severe 2-3 hour delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods
F3	>1.46	Extremely severe 3+ hours of delay	Gridlock

Source: Caltrans, 1992

2.4 Mitigation

Mitigation for significant traffic impacts would be in the form of either the Otay Mesa Community Plan Public Facilities Financing Plan (PFFP) or a fair share contribution to improvements identified, full funding, or construction of improvements deemed project related. However, some improvements identified may not fully mitigate traffic operations to acceptable levels of service. In this instance, significant traffic impacts would remain unmitigated.

3.0 EXISTING CONDITIONS

This section of the report evaluates existing average daily traffic (ADT) volumes on important study area street segments (between intersections) and at major intersections during AM and PM peak hours. Traffic volumes are based on recent daily roadway traffic counts and peak period manual traffic counts at intersections.

3.1 Existing Circulation System

Much of the land in Otay Mesa is undeveloped. As a result, the street system is disjointed and incomplete. Interstate 805 and SR-125, known as the South Bay Expressway, provide major access to and from the north of Otay Mesa.

State Route 905 and Palm Avenue provide east-west connections from the community to Interstate 805. Conventional highway SR-905 / Otay Mesa Road provides connection from the Otay Mesa Port of Entry (POE) and community surface streets with regional freeway I-805. Freeway SR-905 is under construction parallel to conventional highway SR-905 / Otay Mesa Road. Phase 1-A of the project has been partially completed which includes segments from the Otay Mesa POE to Britannia Boulevard. The Phase 1-B connection to I-805 is currently under construction. Although the partial interchanges at La Media Road and Britannia Boulevard have recently been open for use, traffic counts at those locations are not included in this section.

State Route 125 toll highway is a privately operated toll highway extending from the State Route 54 / State Route 125 junction to Otay Mesa Road.

The following are general descriptions of key roadways within the community divided into three categories; roads that provide access to and from the community, roads within residential area, and roads within industrial areas.

Community Access Roads

Old Otay Mesa Road – a two-lane Collector (without left turn lane) connecting Otay Mesa with San Ysidro. It extends along the rim of a canyon and intersects with SR-905 / Otay Mesa Road.

SR-905 – a four-lane freeway that extends into Otay Mesa for a mile from its interchange with I-805 and transitions into Otay Mesa Road, a six-lane Primary Arterial.

Del Sol Boulevard – a four-lane Collector (with left turn lane) as it crosses under I-805 from Otay Mesa-Nestor. It intersects Dennery Road and then continues for approximately a quarter-mile as a two-lane Collector (with left turn lane).

Palm Avenue – crosses over I-805 from Otay Mesa-Nestor on a four-lane bridge with double left-turn-lanes at the interchange of Palm Avenue and I-805. Palm Avenue transitions to a six-lane Primary Arterial, and intersects with Dennery Road.

Otay Valley Road – a six-lane major road, Main Street, at I-805 in the City of Chula Vista. Otay Valley Road crosses at the Otay River on a two-lane bridge with a center turn lane and continues as a two-lane Collector (without left turn lane) into the City of San Diego.

Otay Mesa Road – From the terminus of SR-905, Otay Mesa Road is constructed as a six-lane Primary Arterial to Otay Center Road. It is constructed as a seven-lane Major Arterial between Otay Center Road and La Media Road. It transitions to a four-lane Major Arterial east of La Media Road and intersects with the SR-125 southbound off-ramp and northbound on-ramp, and continues east into County of San Diego lands.

Otay Mesa Border Crossing and Port of Entry – a second border crossing between the U.S. and Mexico located at the southeast corner of Otay Mesa. This point of entry allows automobiles but is primarily used for truck traffic which is predominant throughout the community of Otay Mesa.

Roads within Residential Areas

Dennery Road – is constructed as a four-lane Major Arterial between Del Sol Boulevard and Palm Avenue. North of Palm Avenue, the road transitions to a four-lane Collector (with left turn lane) and eventually transitions to a 2-lane Collector (without fronting property).

Ocean View Hills Parkway – is a four-lane Major Arterial road extending from Dennery Road to Del Sol Boulevard. South of Del Sol Boulevard this roadway is constructed as a six-lane Major Arterial and intersects with conventional highway SR-905 / Otay Mesa Road.

Avenida de las Vistas – is a two-lane Collector (without fronting property) extending west of Otay Valley Road. The residential development along Avenida de las Vistas can be accessed via Otay Valley Road to the north or Otay Mesa Road from the south.

Caliente Avenue – is a partially built four-lane Major Arterial extending south from Otay Mesa Road, intersecting with Airway Road. This segment will be constructed as six-lanes as part of the SR-905 interchange currently under construction at this location.

Beyer Boulevard – is a four-lane Major Arterial extending from Old Otay Mesa Road westerly into the San Ysidro community plan area, and provides access to the nearby Beyer Blvd. transit station.

Roads Within Industrial Areas

Airway Road – is an east-west, partially built roadway varying in width that runs parallel with Otay Mesa Road from Britannia Boulevard to the County boundary. The western segment of Airway Road is a three-lane Collector (2 lanes eastbound, 1 lane westbound) between Old Otay Mesa Road and Caliente Avenue, and provides access to San Ysidro High School.

Siempre Viva Road – is an east-west, partially built roadway varying in width between Cactus Road and La Media Road. East of La Media Road, Siempre Viva Road is a six-lane Primary Arterial with an interchange at SR-905 and then transitions to a four-lane Major Arterial from Paseo de las Americas to the County boundary.

Heritage Road – is a north-south, partially built roadway varying in width from Otay Valley Road to its terminus south of Gateway Park Drive.

Cactus Road – is a north-south, four-lane Collector (with left turn lane) south of Otay Mesa Road, ending at the SR-905 right of way. South of SR-905 it is partially constructed with two lanes.

Britannia Boulevard – is a north-south, partially built Major Arterial roadway extending between Otay Mesa Road and Siempre Viva Road. The SR-905 interchange is under construction between Otay Mesa Road and Airway Road. South of Airway Road, portions are built as a four-lane Major Arterial, while some segments are only constructed to half-width.

La Media Road – is a north-south, partially built Major Arterial extending from north of Otay Mesa Road to Siempre Viva Road. The SR-905 interchange is under construction between Otay Mesa Road and Airway Road. South of Airway Road only two lanes are built, extending to a truck only road extending to the east Otay Mesa inspection facility. This road is currently the designated southbound truck route for laden (carrying cargo) trucks from conventional highway SR-905 / Otay Mesa Road to the east Otay Mesa inspection facility.

3.2 Street Segments

Figure 3-1 shows existing average daily traffic volumes on street segments within the study area. These volumes were taken from recent traffic counts conducted by Caltrans, the City of San Diego, or recently counted for other project study purposes, but were obtained before the opening of SR-905 Phase 1-A improvements from the partial Britannia Boulevard interchange to east of the La Media Road partial interchange.

Figure 3-2 shows the intersection number key.

Table 3-1 includes existing street segment levels of service based on the City of San Diego Traffic Impact Study Manual, **Table 2**. The current functional roadway classifications are listed. As shown, most street segments operate acceptably (at LOS “D” or better) except Otay Mesa Road, which operates at level of service “E” or “F” between the terminus of freeway SR-905 and Heritage Road, and level of service “E” between Otay Mesa Center Road and La Media Road.

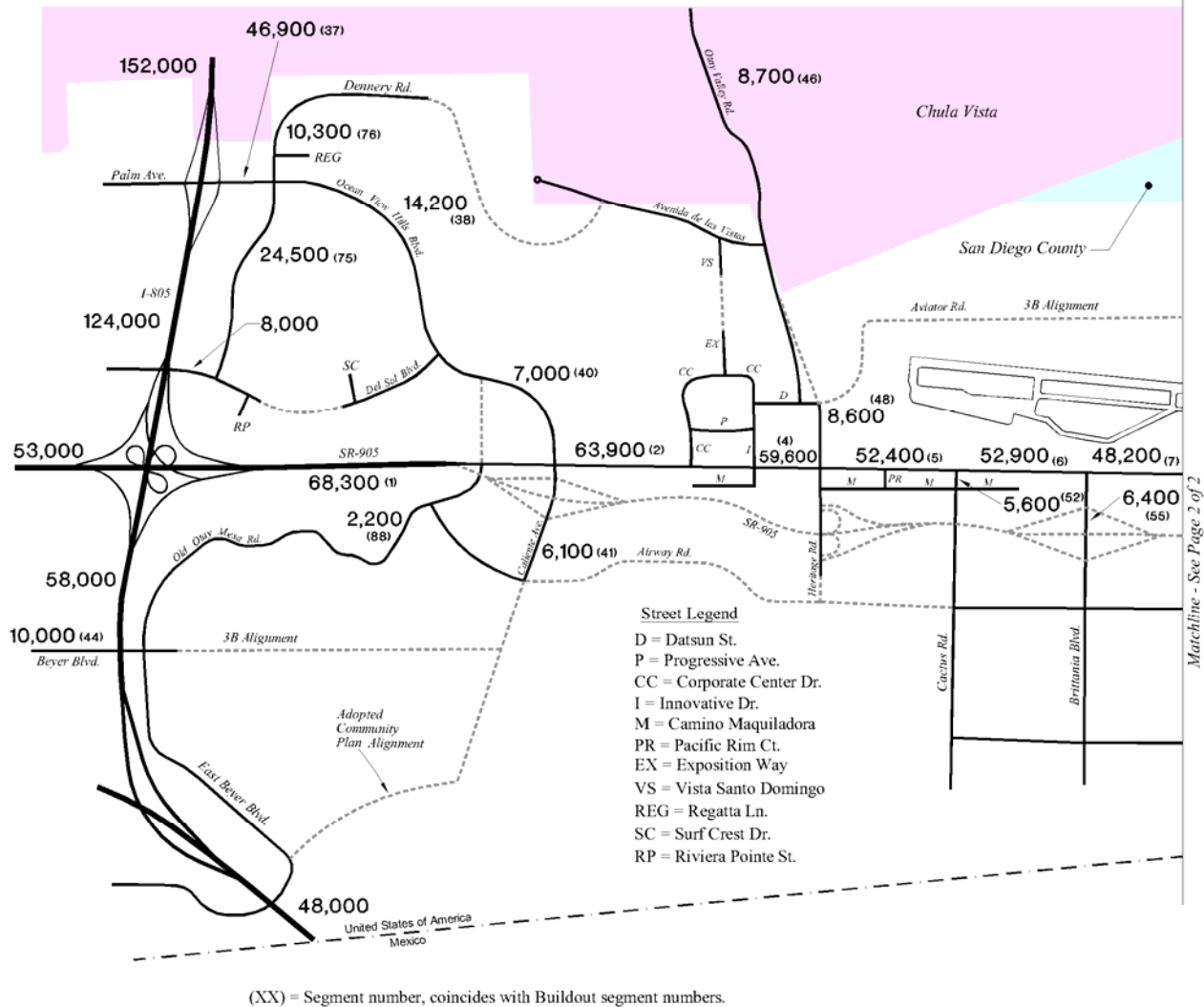
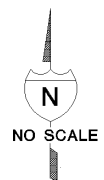


FIGURE 3-1
Existing Average Daily Traffic Volumes (2005 - 2010)



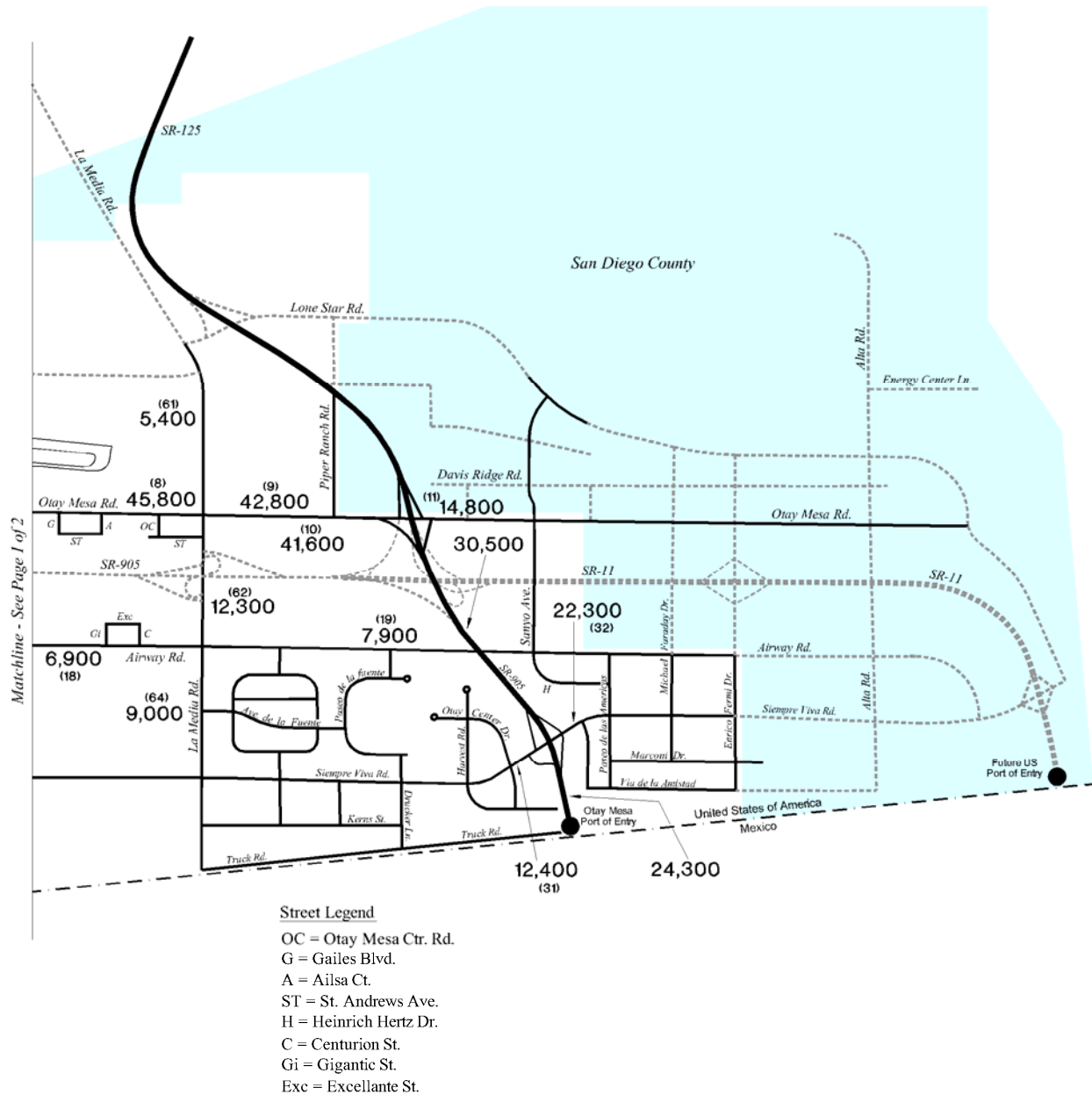
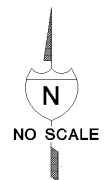


FIGURE 3-1
Existing Average Daily Traffic Volumes (2005 - 2010)



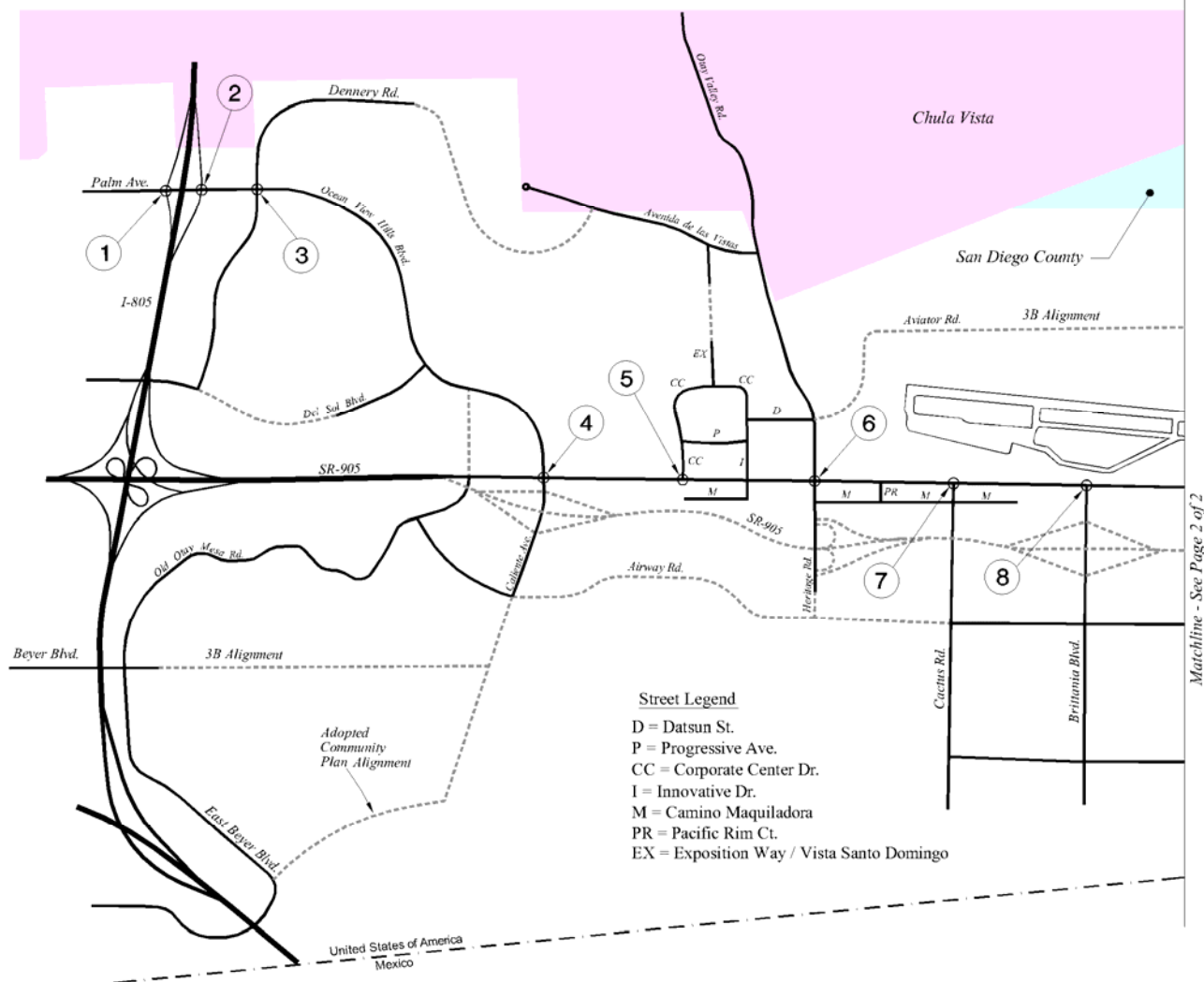
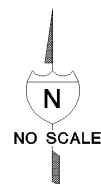


FIGURE 3-2
Existing Intersection Key



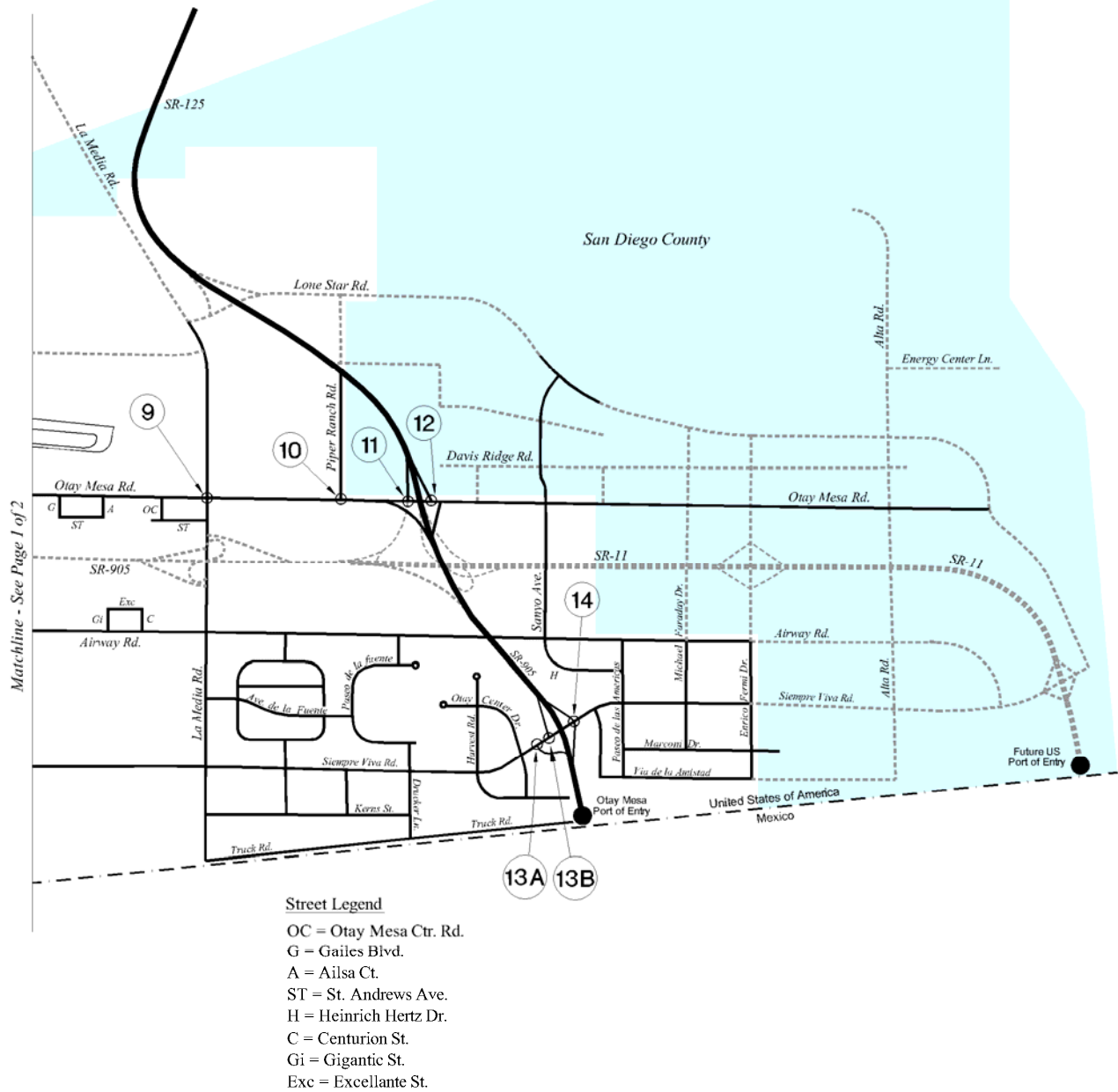


FIGURE 3-2
Existing Intersection Key

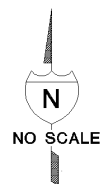


TABLE 3-1

Existing (2005 to 2010) Average Daily Traffic & Level of Service

Street	Segment	#	Class (1)	LOS E ADT (2)	Segment ADT	V/C	LOS	Traffic Count Date
Otay Mesa Road	SR-905 to Caliente Ave.	1	6-PA	60,000	68,300	1.14	F	2009 ①
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	63,900	1.07	F	2009 ①
	Corporate Center Dr. to Heritage Rd.	4	6-PA	60,000	59,600	0.99	E	2009 ①
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	52,400	0.87	D	2009 ①
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	52,900	0.88	D	2009 ①
	Britannia Blvd. to Otay Mesa Center Rd.	7	6-PA	60,000	48,200	0.80	C	2009 ①
	Otay Mesa Center Rd. to La Media Rd.	8	7-M	55,000	45,800	0.84	E	2009 ①
	La Media Rd. to SR-125 SB Ramps	9	5-PA	55,000	42,800	0.78	C	2009 ①
	SR-125 NB Ramps to Sanyo Ave.	11	4-M	40,000	14,800	0.37	A	2009 ①
Airway Road	Britannia Blvd. to La Media Rd.	18	2-CL	15,000	6,900	0.46	B	2010①
	La Media Rd. to Sanyo Ave.	19	2-CL	15,000	7,900	0.53	C	2010①
Siempre Viva Rd. Road	Harvest Rd. to SR-905 SB Ramps	31	6-PA	60,000	12,400	0.21	A	2009 ②
	SR-905 NB Ramps to Paseo de las Americas	32	6-PA	60,000	22,300	0.37	A	2009 ②
Palm Ave.	I-805 NB Ramps to Dennery Rd.	37	6-PA	60,000	46,900	0.78	C	2010 ③
Ocean View Hills Pkwy.	Dennery Rd. to Del Sol Blvd.	38	4-M	40,000	14,200	0.36	A	2010 ③
	Del Sol Blvd. to Otay Mesa Rd.	40	6-M	50,000	7,000	0.14	A	2010①
Caliente Avenue	Otay Mesa Rd. to Airway Rd.	41	4-M	40,000	6,100	0.15	A	2010①
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	88	2-C	8,000	2,200	0.28	A	2009 ②
Beyer Boulevard	Smythe Ave. to Old Otay Mesa Rd.	44	4-M	40,000	10,000	0.24	A	2007③
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas	46	2-C	8,000	8,700	1.09	F	2010①
	Avenida De Las Vistas to Otay Mesa Rd.	48	2-C	8,000	8,600	1.08	F	2010①
Cactus Road	Otay Mesa Rd. to SR-905.	52	4-CL	30,000	5,600	0.19	A	2010①
Britannia Boulevard	Otay Mesa Rd. to Airway Rd.	55	4-M	40,000	6,400	0.16	A	2009①

TABLE 3-1 (Cont.)

Street	Segment	#	Class (1)	LOS E ADT (2)	Segment ADT	V/C	LOS	Traffic Count Date
La Media Road	North of to Otay Mesa Rd.	61	2-CL	15,000	5,400	0.36	B	2010①
	Otay Mesa Rd. to Airway Rd.	62	2-CL	15,000	12,300	0.82	D	2010①
	Airway Rd. to Siempre Viva Rd.	64	2-C	8,000	9,000	1.13	F	2010①
Dennerly Road	Palm Ave. to Regatta Ln.	76	4-M	40,000	10,300	0.26	A	2005④
	Palm Ave. to Walmart Dr.	75	4-M	40,000	24,500	0.61	C	2005④
Del Sol Boulevard	West of Dennerly Rd.	85	4-C	15,000	8,000	0.53	C	2010①

(1) Functional Classification, as currently built.

(2) Source: City of San Diego Traffic Impact Study Manual, Table 2.

= Segment number, coincides with buildout segment number.

Legend

Sources of Traffic Volumes

7-M = 7-Lane Major Arterial

① = Rick Engineering Company

6-PA = 6-Lane Primary Arterial

② = LSA Associates, Inc.

6-M = 6-Lane Major

③ = Kimley-Horn & Associates, Inc.

4-M = 4-Lane Major

④ = Urban Systems Associates, Inc. / TSI

5-PA = Lane Primary Arterial

4-CL = 4-Lane Collector (With Left Lane Turn Lane).

4-C = 4-Lane Collector (Without Left Turn Lane).

2-CL = 2-Lane Collector (With Left Turn Lane).

2-C = 2-Lane Collector (Without Left Turn Lane, Industrial Fronting).

The segments of Otay Valley Road / Heritage Road between Main Street in Chula Vista and Otay Mesa Road are at levels of service “F”. La Media Road between Airway Road and Siempre Viva Road is at level of service “F”.

Table 3-2 shows freeway segment levels of service. Freeway segments of I-805 and SR-905 are shown to operate acceptably at LOS “D” or better.

3.3 Intersections

Figure 3-3 includes existing lane configurations at major intersections.

Figure 3-4 shows existing AM and PM peak hour traffic volumes at the study area intersections.

Intersection levels of service for the AM and PM peak hours were calculated using Highway Capacity Manual procedures. **Table 3-3** includes the results of the intersection level of service evaluation for existing conditions. **Figure 3-5** also shows intersection levels of service graphically. The study area intersections are shown to be operating at acceptable levels of service (“D” or better LOS) for existing conditions, except at one location. The Otay Mesa Road / Heritage Avenue intersection operates at level of service “E” during the AM peak hour.

3.4 Ramp Meters

Currently, the I-805 / Palm Avenue and SR-905 / Siempre Viva Road interchange freeway on ramps do not have ramp meters installed.

Appendix A includes additional existing conditions information, traffic counts, traffic signal timing sheets, and levels of service worksheets.

TABLE 3-2

Existing Freeway Segment Levels of Service

Freeway Segment	Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %	Direction Split	Truck Factor	Peak Volume	V/C	LOS (2)
Interstate 805									
Otay Valley Rd. - Palm Ave.	4+AUX	11,200	152,000	0.08	0.60	0.90	8,107	0.72	C
Palm Ave. - SR-905	4	9,400	124,000	0.08	0.60	0.90	6,613	0.70	C
SR-905 - San Ysidro Blvd.	4	9,400	58,000	0.08	0.60	0.90	3,093	0.33	A
SR-905									
Picador Blvd. - I-805	2	4,700	53,000	0.08	0.60	0.90	2,827	0.60	B
I-805 – Caliente Ave.	2	4,700	58,300	0.08	0.60	0.90	3,109	0.66	C
Otay Mesa Rd. - Siempre Viva Rd.	2	4,700	30,500	0.08	0.60	0.90	1,600	0.34	A
Siempre Viva Rd. - Border	3	4,700	24,300	0.08	0.60	0.90	1,296	0.28	A

LEGEND:

Cap. = Capacity in one direction

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Peak Hour % = % of ADT in Peak Hour

Freeway Mainlane Capacity = 2,350 VPHPL

Auxillary Lane Capacity (AUX) = 1,800 VPHPL

Direction Split = % of Peak Hour in Peak Direction

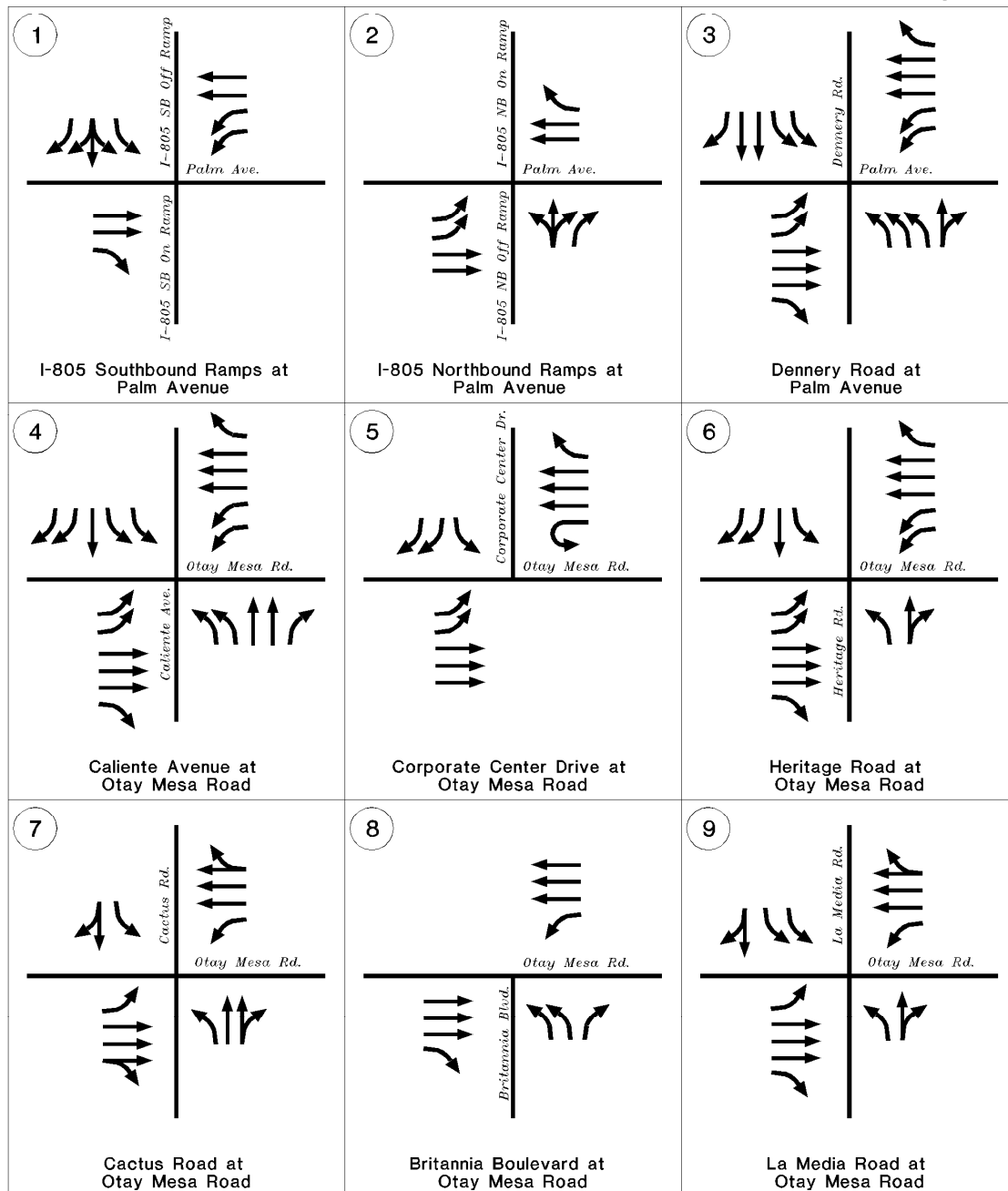
Truck Factor = Represents Capacity Reduction for
Heavy Vehicles (Trucks at 10% of ADT)

NOTES:

(1) Caltrans District 11, 2009.

(2) Caltrans District 11 LOS Estimation Procedures,

See Appendix A



Note: All Locations Signalized

FIGURE 3-3
Existing Lane Configurations



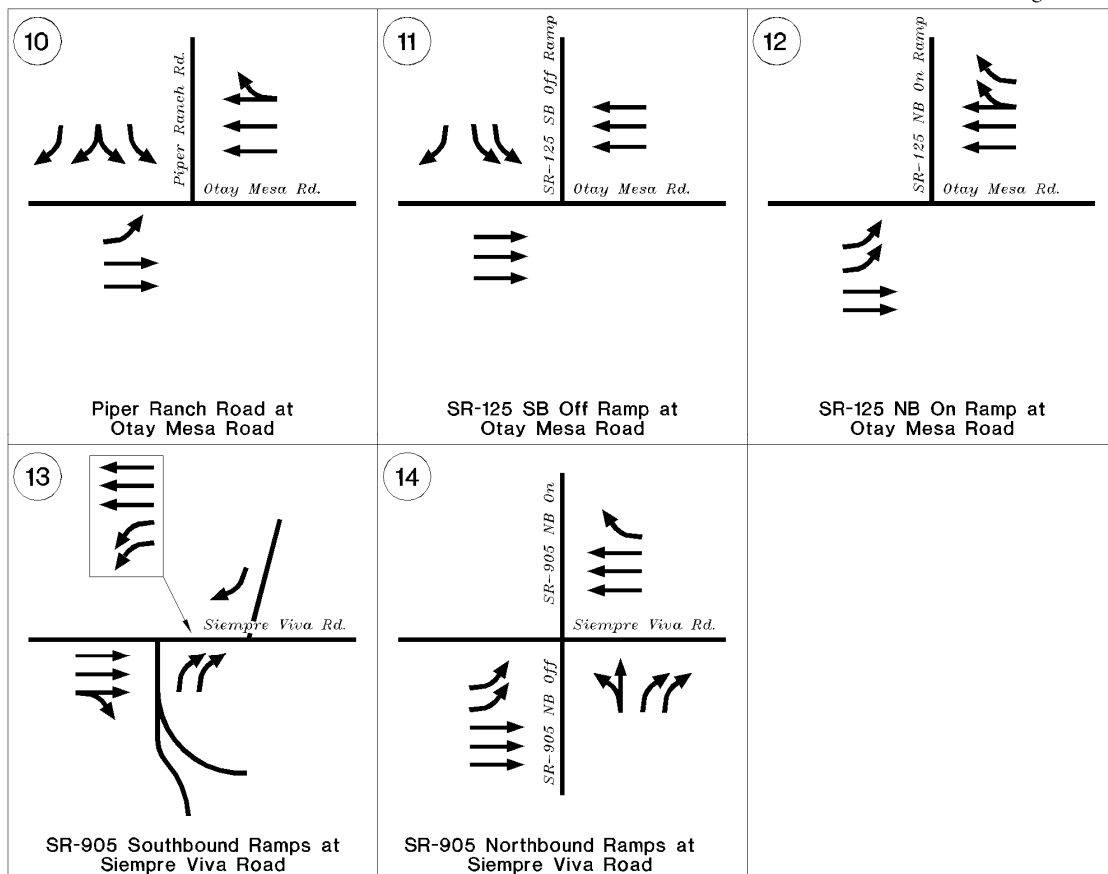
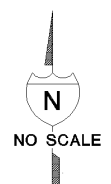


FIGURE 3-3
Existing Lane Configurations



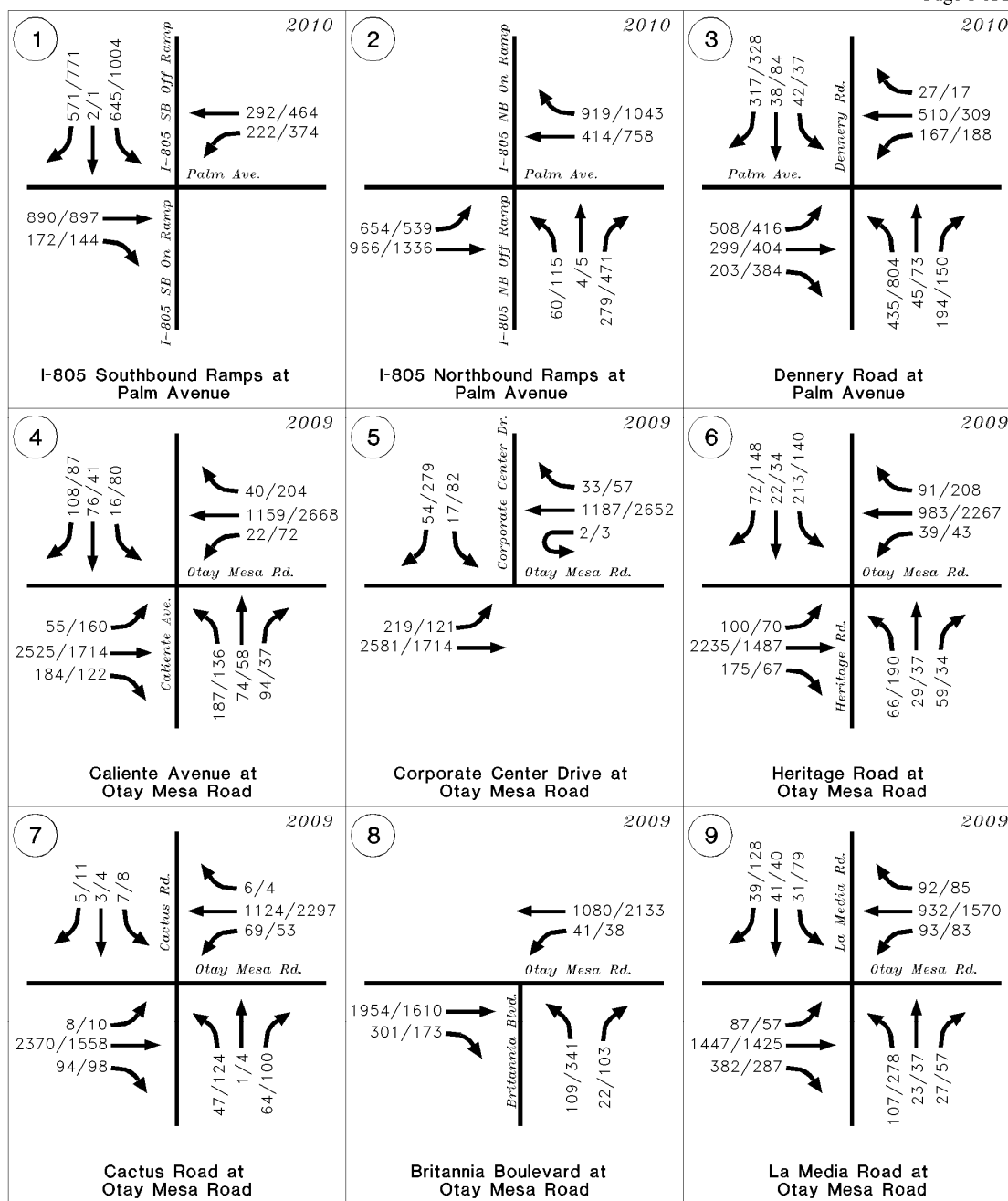
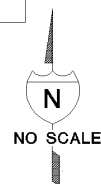


FIGURE 3-4
Existing AM/PM Peak Hour Traffic Volumes



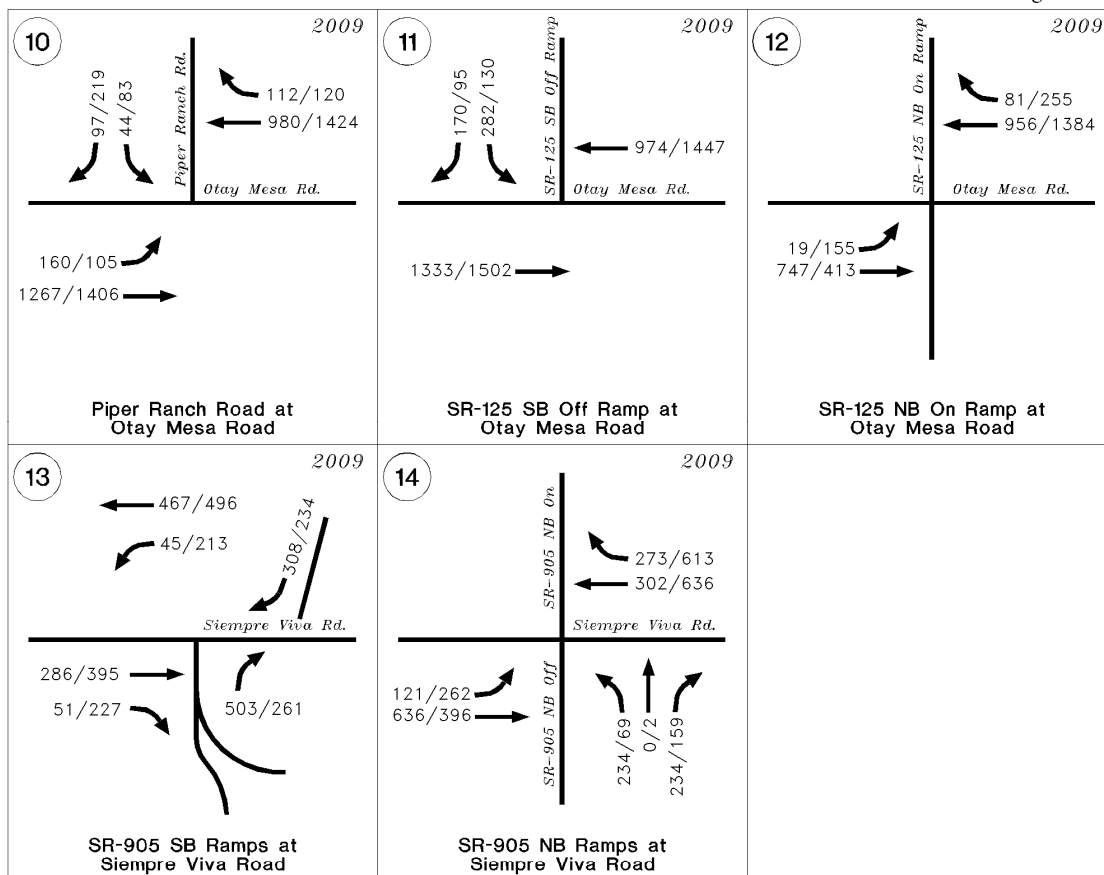


FIGURE 3-4
Existing AM/PM Peak Hour Traffic Volumes

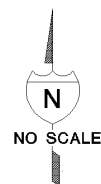


TABLE 3-3
Existing 2010 Intersection Levels of Service

Intersection		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	27.5	C	45.4	D
2	Palm Ave. / I-805 NB Ramps	33.4	C	51.0	D
3	Palm Ave. / Dennerly Rd.	34.9	C	37.9	D
4	Otay Mesa Rd. / Caliente Ave.	44.4	D	40.2	D
5	Otay Mesa Rd. / Corporate Center Dr.	35.7	D	35.0	D
6	Otay Mesa Rd. / Heritage Rd.	60.5	E	42.6	D
7	Otay Mesa Rd. / Cactus Rd.	33.4	C	31.6	C
8	Otay Mesa Rd. / Britannia Blvd.	7.3	A	11.4	B
9	Otay Mesa Rd. / La Media Rd.	15.8	B	43.2	D
10	Otay Mesa Rd. / Piper Ranch Rd.	8.3	A	9.4	A
11	Otay Mesa Rd. / SR-125 SB Off-Ramp.	7.6	A	3.7	A
12	Otay Mesa Rd. / SR-125 NB On-Ramp	0.8	A	3.2	A
13A	Siempre Viva Rd. / SR-905 SB Ramps	16.1	B	11.6	B
13B	SR-905 SB Off Ramp to WB Siempre Viva Rd. ①	14.3	B	14.4	B
14	Siempre Viva Rd. / SR-905 NB Ramps	14.5	B	14.6	B

Legend

Note: All locations signalized, except 13B.

CD = Control Delay in seconds

LOS = Level of Service

① = Stop sign facing SB to WB traffic. LOS is for the SB to WB right-turn.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
<i>Source: 2000 Highway Capacity Manual</i>	

Page 1 of 2

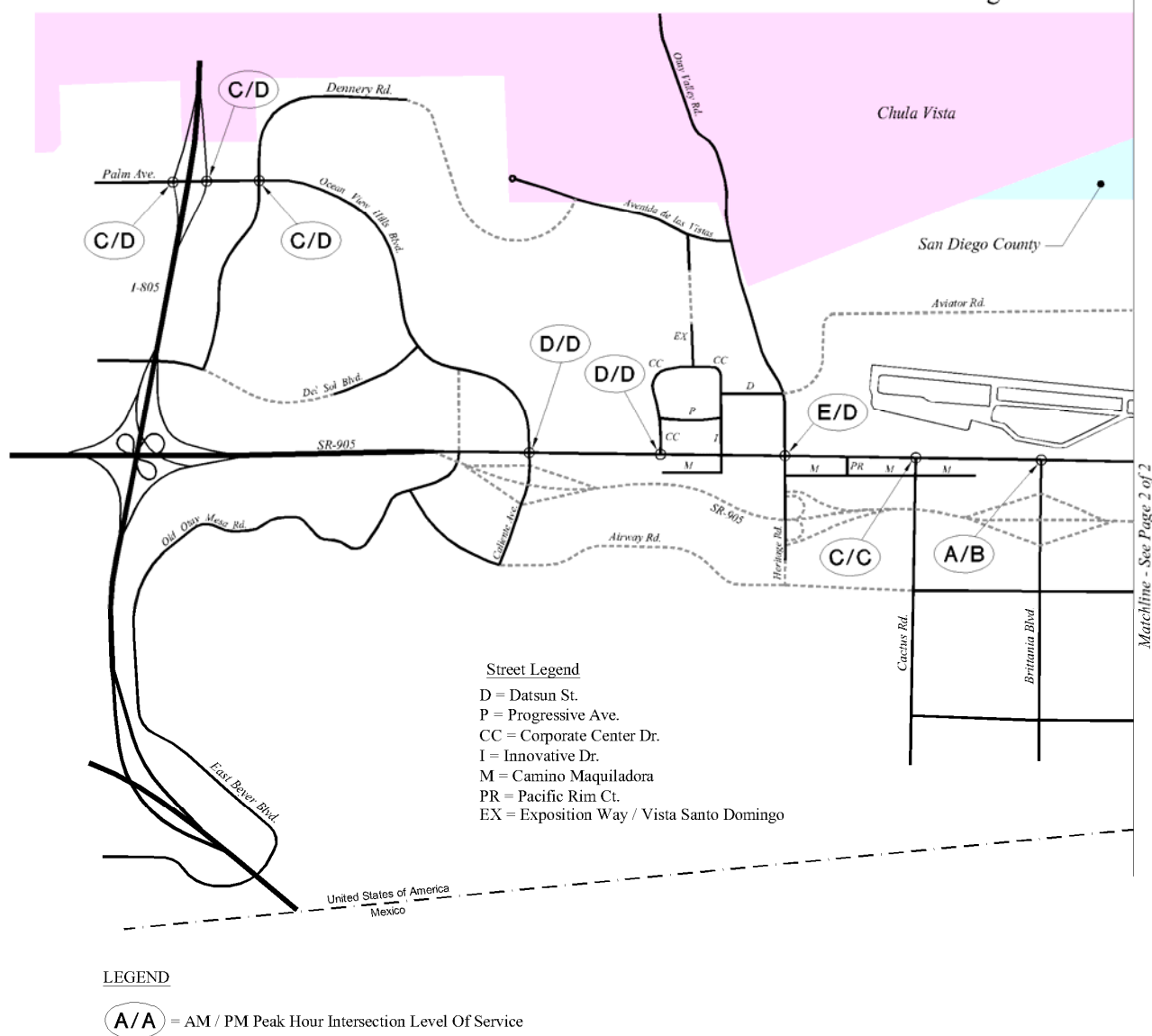
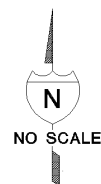


FIGURE 3-5
Existing AM/PM Intersection Levels of Service



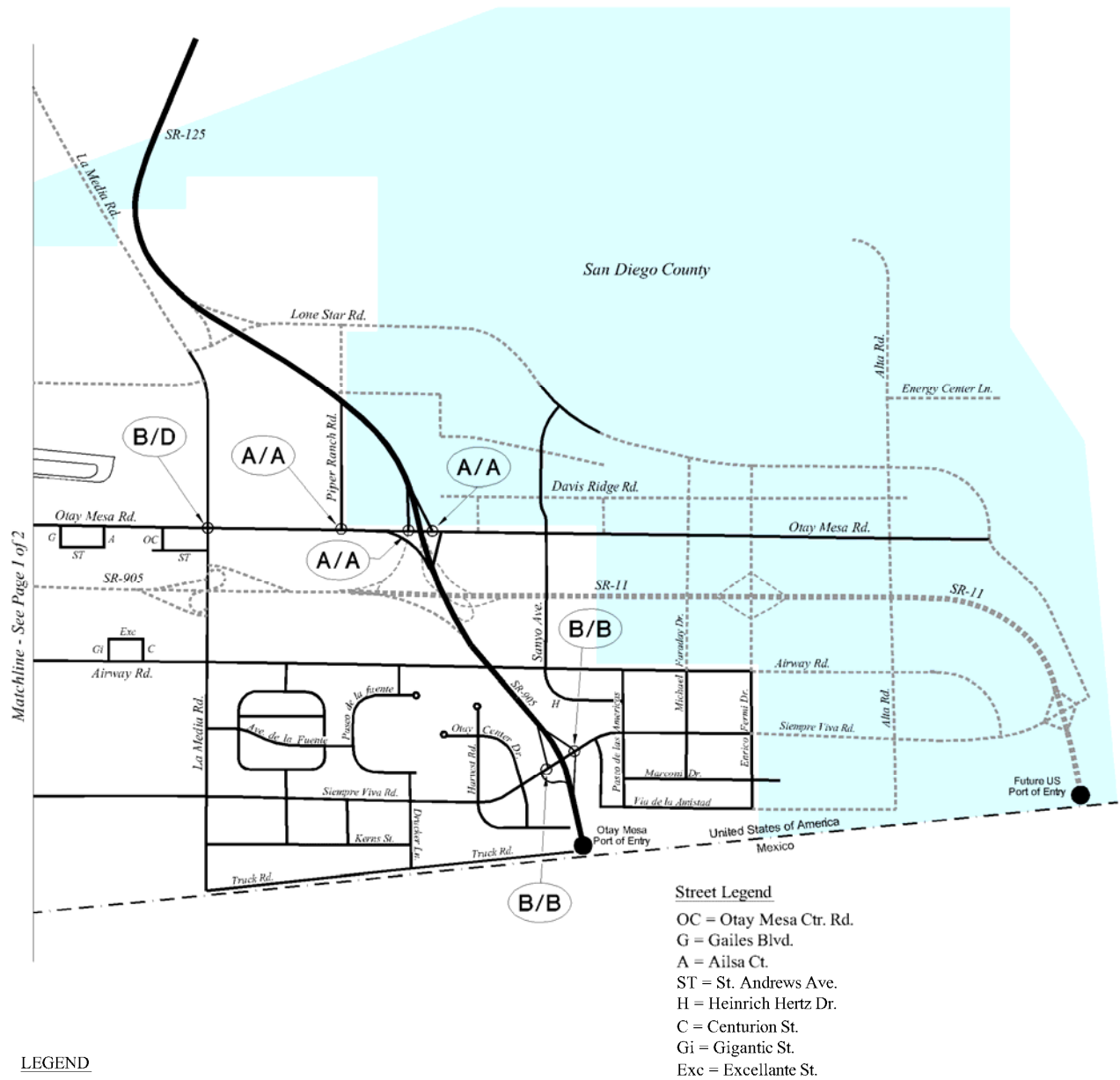
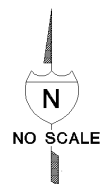


FIGURE 3-5
Existing AM/PM Intersection Levels of Service



4.0 OVERVIEW

The two land use scenarios, the Adopted Community Plan and Land Use Scenario 3B, analyzed for this study include different levels of land use intensity of future residential, commercial (retail and office), and industrial uses. Some of the principal ideas portrayed in the scenario 3B land use include multiple land uses to induce interaction with one another to create a single interconnected community. In both project scenarios, residential development would be concentrated in the western portion of Otay Mesa with some new residential areas located in other areas of the community. Different from the Adopted Community Plan a mixed-use designation – which typically allows residential, office, retail, recreational and/or civic uses - has been applied in areas of the community for the Scenario 3B land use.

No Project Scenario/Adopted Community Plan: The adopted Otay Mesa Community Plan concentrates residential development in the western third of Otay Mesa with industrial uses planned for the central and eastern portions of the community. The original 1981 land use map anticipated the development of 18,200 dwelling units in Otay Mesa. However, a 1997 community plan amendment to incorporate the Multiple Species Conservation Program (MSCP) reduced the potential residential build-out units resulting in 12,206 currently being anticipated by the Otay Mesa Community Plan. The traffic forecast for this alternative assumed 5,776,000 square feet of commercial uses and 64,465,000 square feet of industrial uses. The buildout of this plan would generate a total of 1,165,103 average daily vehicle trips.

Land Use Scenario 3B With La Media Road: Approximately 18,774 dwelling units could be developed under this plan by increasing the housing unit yield in the southwestern residential areas, creating Community Villages south of Airway Road, west of Cactus Road and in an area south of SR-905 and west of Britannia Boulevard. This plan would retain industrial and commercial uses between Otay Mesa

Road and SR-905. The traffic forecast for this alternative assumed 3,917,000 square feet of commercial uses and 54,461,000 square feet of industrial uses. A cross border facility is included in this plan. The buildout of this plan would generate 1,045,025 average daily vehicle trips.

The City of Chula Vista is preparing a General Plan Amendment, anticipated in Spring 2012, that would delete the La Media Road bridge crossing the Otay River Valley from their General Plan, and has deleted this project from their facilities financing plan. Therefore, the “With La Media Road” connection to Chula Vista is no longer a viable alternative.

Land Use Scenario 3B Without La Media Road: The Adopted Community Plan includes the extension of La Media Road north of Lone Star Road to cross the Otay River Valley on a bridge. However, the City of Chula Vista has indicated that they will be deleting this crossing from their General Plan Circulation Element. The Scenario 3B land use assumptions remain unchanged, but the segment of La Media Road crossing the Otay River Valley has been deleted for this analysis.

5.0 NO PROJECT

5.1 Assumed Land Use and Transportation Network

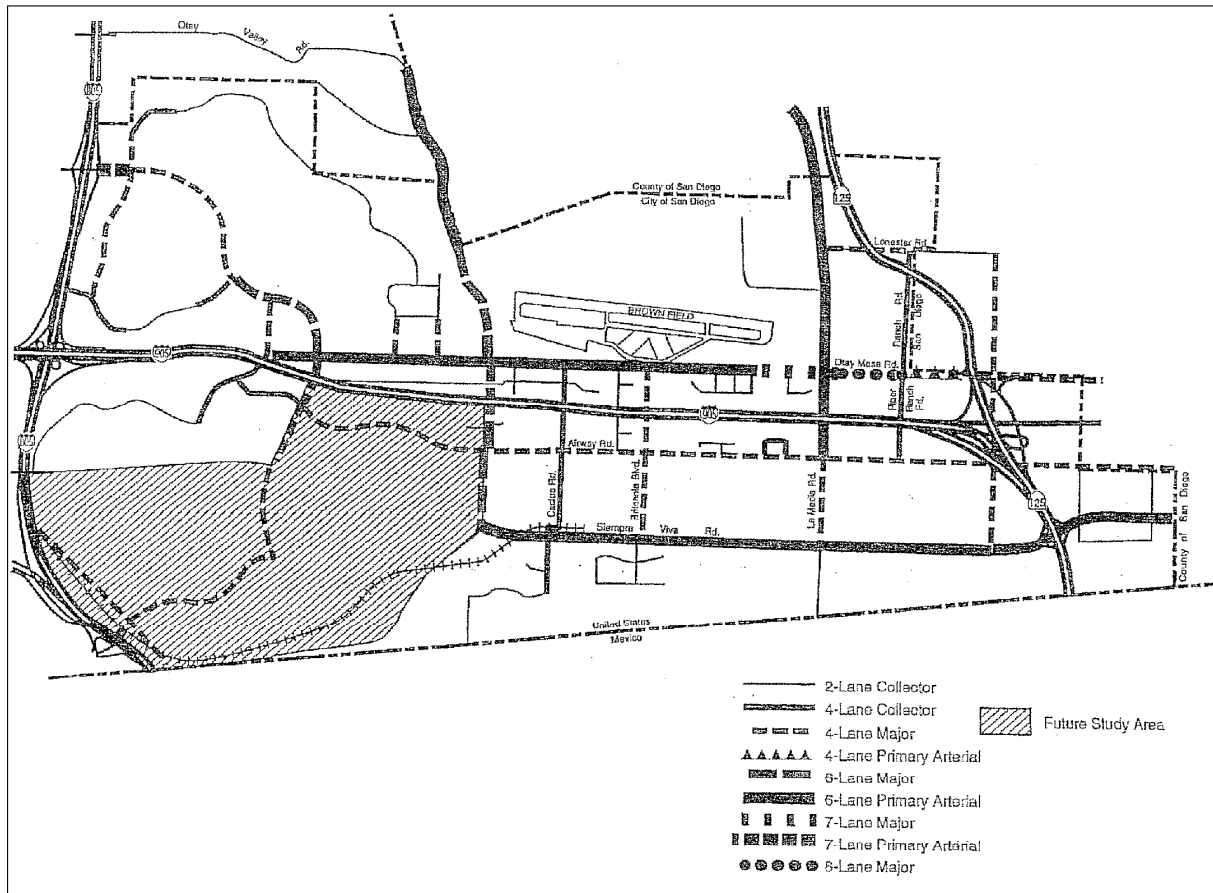
The circulation element roadways and land use for this scenario remains consistent with the existing adopted Otay Mesa Community Plan (November 23, 1999), shown in **Figure 5-1**. Adopted updates on land uses and transportation improvements as of 2004 were also included in this scenario. **Appendix B** includes the detailed land uses assumed in the traffic model for this scenario. Under this scenario, the circulation network was updated in the transportation model to more accurately represent the latest amendments, additions and changes made to the street system since the latest Community Plan approval. Some of the updates from the latest Community Plan amendments include the following roadway additions to the traffic model circulation network. These roadway classifications are not necessarily the recommended classifications after the evaluation of the traffic model results for each scenario.

-Addition of Sanyo Avenue/Heinrich Hertz Drive as a four-lane collector, between Otay Mesa Road and Paseo De las Americas.

-Addition of Via de la Amistad as a two-lane Collector (without left turn lane), between Paseo de las Americas to Enrico Fermi Drive.

-Addition of Marconi Drive as a two-lane Collector (without left turn lane) from Paseo de las Americas east to Enrico Fermi Drive

-Deletion of Harvest Road from north of Airway Road to north of the SR-905 right of way.



SOURCE

City of San Diego Planning Department
Otay Mesa Existing Conditions Report
Approved November 23, 1999



FIGURE 5-1
Adopted Circulation Plan

-Addition of Otay Center Drive as a four-lane Collector (without left turn lane) east from Harvest Road, south to Siempre Viva Road, and south of Siempre Viva Road to Custom House Plaza.

-Addition of Custom House Plaza as a four-lane Collector (without left turn lane) extending south from Siempre Viva Road and curving east to Otay Center Drive.

-Addition of Avenida de la Fuente, Avenida Costa Norte, Avenida Costa Sur, Avenida Costa Este, Avenida Blanca, and Avenida del Sol which form a self-contained street system as two-lane Collectors (without left turn lane) with access to Airway Road, La Media Road, and Siempre Viva Road.

-Addition of Saint Andrews Avenue as a two-lane Collector (without left turn lane) connecting Otay Mesa Center Drive to La Media Road.

-Addition of Avenida de las Vistas as a two-lane Collector (without left turn lane) connecting to Otay Valley Road.

5.2 Segment Level of Service

Figure 5-2 shows the projected buildout average daily traffic trips generated on the street system due to the land uses assumed under the “No Project” scenario. **Table 5-1** indicates the roadway segment level of service for numerous roadway segments as a result of the projected average daily traffic and the capacity of the roadway. The highest forecasted volumes between circulation element roads were used for analysis. Also shown are recommended reclassifications of roadways. The initial “without mitigation”





TABLE 5-1

Buildout Adopted Community Plan

Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Otay Mesa Road	Street A to Caliente Ave.	1	6-PA	60,000	32,000	0.53	B	6-M	0.64	C	N
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	78,000	1.30	F	N	-	-	Y
	Corporate Center Dr. to Innovative Dr.	3	6-PA	60,000	36,000	0.60	C	N	-	-	N
	Innovative Dr. to Heritage Rd.	4	6-PA	60,000	42,000	0.70	C	N	-	-	N
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	74,000	1.23	F	N	-	-	Y
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	47,500	0.78	C	N	-	-	N
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	58,500	0.98	E	N	-	-	Y
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	49,500	0.90	E	6-PA	0.83	C	N
	La Media Rd. to Piper Ranch Rd.	9	8-M	70,000	50,000	0.71	C	6-PA	0.83	C	N
	Piper Ranch Rd. to SR-125	10	4-P	45,000	22,500	0.50	C	6-PA	0.38	A	N
	SR-125 to Harvest Rd.	11	4-M	40,000	42,500	1.06	F	6-PA	0.71	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	38,500	0.96	E	6-PA	0.64	C	N
	Sanyo Ave. to Enrico Fermi Dr.	13	4-M	40,000	14,000	0.35	A	6-PA	0.23	A	N
Airway Road	Old Otay Mesa Rd. to Caliente Ave.	14	4-CL	30,000	20,500	68.00	D	N	-	-	N
	Caliente Ave. to Heritage Rd.	15	4-M	40,000	59,000	1.48	F	6-PA	0.98	E	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	39,500	0.99	E	6-M	0.79	C	N
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	46,500	1.16	F	6-M	0.93	E	Y
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	39,000	0.98	E	6-M	0.78	C	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	54,500	1.36	F	6-M	1.09	F	Y
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	49,500	1.24	F	6-M	0.99	E	Y
	Sanyo Ave. to Paseo de las Americas	21	4-M	40,000	20,500	0.51	B	N	-	-	N
	Paseo de las Americas to Michael Faraday Dr.	22	4-M	40,000	17,000	0.43	B	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	23	4-M	40,000	16,000	0.40	B	N	-	-	N
	Enrico Fermi Dr. to Siempre Viva Rd.*	24	4-M	40,000	15,000	0.38	A	N	-	-	N
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	4-M	40,000	47,000	1.18	F	N	-	-	Y
	Heritage Rd. to Cactus Rd.	26	6-PA	60,000	48,000	0.80	C	N	-	-	N
	Cactus Rd. to Britannia Blvd.	27	6-PA	60,000	44,500	0.74	C	N	-	-	N
	Britannia Blvd. to La Media Rd.	28	6-PA	60,000	52,500	0.88	D	N	-	-	N
	La Media Rd. to Harvest Rd.	29	6-PA	60,000	34,500	0.58	B	N	-	-	N
	Harvest Rd. to Otay Center Dr.	30	6-PA	60,000	35,000	0.58	B	N	-	-	N
	Otay Center Dr. to SR-905	31	6-PA	60,000	64,500	1.08	F	N	-	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	72,000	1.20	F	N	-	-	Y
	Paseo de las Americas to Michael Faraday Dr.	33	4-M	40,000	20,500	0.51	B	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	34	4-M	40,000	21,000	0.53	B	N	-	-	N
	Enrico Fermi Dr. to SR-11*	35	4-M	40,000	21,000	0.53	B	N	-	-	N

*Segment in County of San Diego

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

Y = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

TABLE 5-1 (Continued)
Buildout Adopted Community Plan
Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Palm Avenue	I-805 to Dennerly Rd.	37	7-PA	65,000	69,500	1.07	F	N	-	-	Y
Ocean View Hills Parkway	Dennerly Rd. to Del Sol Blvd.	38	4-M	40,000	27,000	0.68	C	N	-	-	N
	Del Sol Blvd. to Street "A"	39	6-M	50,000	45,000	0.90	D	N	-	-	N
	Street "A" to Otay Mesa Rd.	40	6-M	50,000	23,500	0.47	B	N	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	41	6-M	50,000	39,000	0.78	C	6-PA	0.65	C	N
	SR-905 to Airway Rd.	42	6-M	50,000	38,000	0.76	C	6-PA	0.63	C	N
	Airway Rd. to Siempre Viva Rd.	43	4-M	40,000	48,000	1.20	F	6-M	0.96	E	Y
Beyer Boulevard	Alaquinias Dr. to Old Otay Mesa Rd.	44	4-M	40,000	24,500	0.61	C	N	-	-	N
	Old Otay Mesa Rd. to East End	45	4-M	40,000	3,000	0.08	A	2-CL	0.2	A	N
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	87,000	1.45	F	N	-	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	77,500	1.55	F	6-PA	1.29	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	47,500	0.95	E	6-PA	0.79	C	N
	Otay Mesa Rd. to SR-905	49	6-M	50,000	17,500	0.35	A	6-PA	0.29	A	N
	SR-905 to Airway Rd.	50	6-M	50,000	52,000	1.04	F	6-PA	0.87	D	N
	Airway Rd. to Siempre Viva Rd.	51	6-M	50,000	58,000	1.16	F	6-PA	0.97	E	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	35,000	1.16	F	4-M	0.88	D	N
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	23,000	0.77	D	N	-	-	N
	Siempre Viva Rd. to South End	54	4-CL	30,000	29,500	0.98	E	N	-	-	Y
Britannia Boulevard	Otay Mesa Rd. to SR-905	55	4-M	40,000	19,500	0.49	B	6-PA	0.33	A	N
	SR-905 to Airway Rd.	56	4-M	40,000	52,000	1.30	F	6-PA	0.87	D	N
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	33,000	0.83	D	6-M	0.66	C	N
	Siempre Viva Rd. to South End	58	2-C	8,000	32,500	4.01	F	4-M	0.81	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	93,000	1.55	F	N	-	-	Y
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	64,500	1.08	F	N	-	-	Y
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	64,500	1.08	F	N	-	-	Y
	Otay Mesa Rd. to SR-905	62	6-PA	60,000	48,000	0.80	C	N	-	-	N
	SR-905 to Airway Rd.	63	6-PA	60,000	75,500	1.26	E	N	-	-	Y
	Airway Rd. to Siempre Viva Rd.	64	4-M	40,000	32,000	0.81	D	5-M	0.71	C	N
Harvest Road	South of Otay Mesa Rd.	65	4-M	40,000	11,000	0.28	A	2-CL	0.73	D	N
	Airway Rd. to Otay Center Dr.	66	4-M	40,000	34,000	0.85	D	N	-	-	N
	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	38,000	0.95	E	N	-	-	Y

*Segment in County of San Diego

Note: There is no segment #36.

**Segment in Chula Vista

= Segment Number

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8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

TABLE 5-1 (Continued)
Buildout Adopted Community Plan
Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOSE ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Enrico Fermi Drive	SR-11 to Airway Rd.*	68	4-M	40,000	17,000	0.43	B	N	-	-	N
	Airway Rd. to Siempre Viva Rd.	69	4-M	40,000	8,000	0.20	A	4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	70	4-M	40,000	10,500	0.26	A	4-CL	0.35	B	N
Lone Star Road	La Media Rd. to SR-125	71	4-M	40,000	38,000	0.95	E	6-PA	0.63	C	N
	SR-125 to Piper Ranch Rd.	72	4-M	40,000	55,000	1.38	F	6-PA	0.92	D	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	54,500	1.36	F	6-PA	0.91	D	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	15,500	1.94	F	4-CL	0.52	C	N
Dennery Road	Palm Ave. to Del Sol Blvd.	75	4-M	40,000	28,500	0.71	C	N	-	-	N
	Palm Ave. to Regatta Ln.	76	4-M	40,000	21,000	0.53	B	N	-	-	N
	Regatta Ln. to Red Coral Ln.	77	4-CL	30,000	15,000	0.50	C	N	-	-	N
	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	15,000	1.00	E	N	-	-	Y
	Black Coral Ln. to East End	79	2-CN	10,000	21,500	2.15	F	N	-	-	Y
Avendia De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	80	2-CN	10,000	9,000	0.90	D	N	-	-	N
	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	25,000	2.50	F	N	-	-	Y
Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	82	4-CL	30,000	23,500	0.78	D	N	-	-	N
	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	26,000	2.60	F	N	-	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	26,000	1.73	F	N	-	-	Y
	Dennery Rd. to I-805	85	4-CL	30,000	20,000	0.66	C	N	-	-	N
Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	86	4-M	40,000	19,500	0.49	B	N	-	-	N
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	87	4-CL	30,000	22,000	0.73	D	N	-	-	N
	Airway Rd. to Crescent Bay Dr.	88	4-CL	30,000	20,000	0.67	C	N	-	-	N
	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	21,500	2.69	F	N	-	-	Y
Emerald Crest Drive	Otay Mesa Rd. to South End (3)	90	4-CL	30,000	25,000	0.83	D	N	-	-	N
Corporate Center Drive	South End to Otay Mesa Rd. (3)	91	4-CL	30,000	17,500	0.58	C	N	-	-	N
	Otay Mesa Rd. to Progressive Ave.	92	4-CL	30,000	24,500	0.82	D	N	-	-	N
	Progressive Ave. to Innovative Dr.	93	2-C	8,000	13,000	1.63	F	2-CL	0.87	D	N
Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	94	4-CL	30,000	16,000	0.53	C	N	-	-	N
Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	96	4-CL	30,000	17,000	0.57	C	N	-	-	N

*Segment in County of San Diego

= Segment Number

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7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

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TABLE 5-1 (Continued)
Buildout Adopted Community Plan
Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	S?
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	43,000	2.87	F	4-M	1.08	F	Y
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	27,000	1.80	F	N	-	-	Y
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	33,500	4.18	F	4-M	0.84	D	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	16,000	2.00	F	4-CL	0.53	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	16,500	2.06	F	2-CL	1.10	F	Y
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	14,000	0.93	E	4-CL	0.47	B	N
Michael Faraday Drive	Airway Rd. to Siempre Viva Rd. (4)	103	2-CL	15,000	9,500	0.63	C	N	-	-	N
	Siempre Viva Rd. to Marconi Dr. (4)	104	2-CL	15,000	5,500	0.37	B	N	-	-	N
St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	105	2-C	8,000	20,500	2.56	F	4-CL	0.68	D	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	9,000	1.13	F	4-C	0.60	C	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	7,500	0.94	E	N	-	-	Y
	Pacific Rim Ct. to Cactus Rd.	109	2-C	8,000	6,000	0.75	D	N	-	-	N
	Cactus Rd. to Continental St.	110	2-C	8,000	5,500	0.69	D	N	-	-	N
Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	111	2-C	8,000	4,000	0.50	A	N	-	-	N
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	17,000	2.13	F	N	-	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	36,500	4.56	F	4-M	0.91	E	Y
Datsun Drive	Innovative Dr. to Heritage Rd. (4)	114	2-C	8,000	31,000	3.88	F	4-CL	1.03	F	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.(3)	115	2-CL	15,000	18,000	1.20	F	4-CL	0.60	C	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	19,500	1.30	F	N	-	-	Y
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	19,500	1.30	F	N	-	-	Y
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	18,500	1.23	F	N	-	-	Y
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (4)	119	2-CN	10,000	17,000	1.70	F	N	-	-	Y
Continental Street	South of Otay Mesa Rd.	120	2-C	8,000	4,500	0.56	C	N	-	-	N
	North of Airway Rd.	121	2-CL	15,000	10,000	0.67	C	N	-	-	N

*Segment in County of San Diego

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

Y = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

classification of roadways is based on the existing functional classification. Or, if the street did not exist in the existing conditions assessment, or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing sized facility due to its capacity, then the Adopted Community Plan classification was used. Failing roadway segments at level of service “E” or “F” with significant traffic impacts are summarized below. All other roadway segments are projected to operate at a level of service “D” or better, without significant traffic impacts

Otay Mesa Road

-Caliente Avenue to Corporate Center Drive: level of service “F”.

-Heritage Road to Cactus Road: level of service “F”.

-Britannia Boulevard to Ailsa Court: level of service “E”.

A reclassification of these segments from a six lane Primary Arterial to eight lanes is not recommended. Widening to eight lanes would be costly, and intersections would be wider and less pedestrian friendly. Right turn only lanes at intersections are recommended to be lengthened to serve as auxiliary lanes between intersections. Without reclassification the significant impact would remain unmitigated.

-Ailsa Court to La Media Road: level of service “E”.

This segment is currently classified as a seven lane Major Arterial. A reclassification to a six lane Primary Arterial is recommended. As the property on the south side is redeveloped, parking and access will be restricted. The significant impact would be mitigated by this reclassification.

- Piper Ranch Road to State Route 125 Northbound Ramp intersection: level of service “C”.

A reclassification from a four lane Primary Arterial to a six lane Primary Arterial is recommended. Segments to the west and to the east are recommended to be six lanes. To maintain traffic lane continuity and to reduce congestion that could be caused by merging lanes, a continuous six lane roadway is recommended.

-State Route 125 Northbound Ramp intersection to Harvest Road: level of service “F”.

A reclassification to a six lane Primary Arterial is recommended. There are few driveways and developed parcels along this segment so restricting parking and access would have a minimal impact. The level of service would improve from “F” to “C”, and the significant impact would be fully mitigated.

-Harvest Road to Sanyo Avenue: level of service “E”.

A reclassification from a four lane Major Arterial to six lane Primary Arterial is recommended. There are few driveways and developed parcels along this segment so restricting parking and access would have a minimal impact. The significant impact would be mitigated by this reclassification. A reclassification to a six lane Primary Arterial is recommended for the entire length of Otay Mesa Road east of Sanyo Avenue to match the six lane classification within the County of San Diego, and maintain consistency in lane configurations.

Airway Road

-Airway Road is classified as a four lane Major Arterial from Caliente Avenue to the east City limit. The segments between Caliente Avenue and Sanyo Road are expected to be at levels of service “E” or “F”, and with significant traffic impacts.

The segment between Caliente Avenue and Heritage Road would have the highest volume along these segments. A reclassification to a six lane Primary Arterial for this segment is recommended. This reclassification results in improving the level of service from “F” to “E”, however, the significant impact

would remain unmitigated. This segment includes a bridge crossing an open space canyon so that a six lane bridge would be costly and an eight lane bridge obviously more costly, so is not recommended.

Of the remaining six segments between Heritage Road and Sanyo Avenue, a reclassification to a six lane Major Arterial is recommended. A Primary Arterial reclassification is not recommended since restricting parking and access would possibly discourage full development of adjacent light industrial uses. Two of the six significant impacts to segments would be mitigated and four would be partially mitigated.

Siempre Viva Road

-Caliente Avenue to East Beyer Boulevard: level of service “F”.

This segment of Siempre Viva Road would extend through the MSCP open space area. Retaining the four lane major arterial classification rather than reclassifying to six lanes would minimize costs and infringement into the MSCP area. The significant impact would remain unmitigated.

-Segments from Otay Center Drive to Paseo de las Americas: level of service “F”.

A reclassification from six to eight lanes is not recommended since a costly widening of the SR-905 / Siempre Viva Road interchange would be needed. The significant impact to these segments would be unmitigated.

Palm Avenue

-I-805 to Dennerly Road: level of service “F”.

Both sides of this segment are built out, with medical offices and commercial to the north and a major shopping center to the south. In addition considerable residential development exists nearby to the east, north, and south. A reclassification to eight lanes is not recommended since a widening would be costly and a wider roadway would be less pedestrian friendly. In addition a FBA / PFFP project will widen the I-805 overcrossing adding lanes to the northbound ramp intersection. Ramp intersection levels of service are expected to be acceptable at level of service “D” with completion of this project, through buildout of the community. However, the segment significant impact would be unmitigated.

Caliente Avenue

-Otay Mesa Road to Airway Road:

Although not at level of service “E” or “F”, Caliente Avenue between Otay Mesa Road and Airway Road is recommended to be reclassified from a six lane Major Arterial to a six lane Primary Arterial, restricting access and parking adjacent to the closely spaced intersections, including SR-905 on and off ramp intersections with Caliente Avenue.

-Caliente Avenue between Airway Road and Siempre Viva Road: level of service “F”.

A reclassification from a four lane to a six lane Major Arterial is recommended. This segment extends through a future residential area so that a Prime Arterial restricting access is not recommended. The significant impact would be only partially mitigated.

Heritage Road / Otay Valley Road

-Otay Valley Road between Main Street in Chula Vista and Avenida de las Vista: level of service “F”.

A reclassification to more than the current six lane Primary Arterial would be a decision to be made by the City of Chula Vista. A wider roadway and bridge over the Otay River Valley would be costly and increase environmental impacts to the Otay River Valley and is not recommended. The significant impact to this segment would be unmitigated.

-Avenida de las Vistas to Datsun Street: level of service “F”.

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. A wider classification would be costly to construct and is not recommended. The segment significant impact would be partially mitigated.

-Datsun Street to Otay Mesa Road: level of service “F”.

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. There are few developed driveways along this segment so that restricting parking and access would have minimal impacts to adjacent parcels. The segment significant impact would be mitigated.

-Otay Mesa Road to SR-905 is expected to operate acceptably as a six lane Major Arterial.

There will be close spacing between intersections from Datsun Street, crossing Otay Mesa Road, through the SR-905 interchange, and to Airway Road. A reclassification to a six lane Primary Arterial restricting parking and access is recommended for the entire length of Heritage Road. However, segment significant impacts south of Airway Road would be only partially mitigated.

-SR-905 to Airway Road: level of service "F".

A reclassification to a six lane Primary Arterial mitigates the significant segment impact.

-Airway Road to Siempre Viva Road: level of service "F".

A reclassification to a six lane Primary Arterial does not fully mitigate the significant segment impact. A wider roadway would be costly and is not recommended.

Cactus Road

- Otay Mesa Road to Airway Road: level of service "F".

A reclassification to a four lane Major Arterial is recommended. The significant segment impact would be mitigated.

- Siempre Viva Road to the southend: level of service "E".

A higher classification than the current four lane collector is not recommended. This extension will serve local traffic only, not through traffic. The significant segment impact would be unmitigated.

Britannia Boulevard

- SR-905 to Airway Road: level of service “F”.

Britannia Boulevard has been constructed with six lanes between Otay Mesa Road and the SR-905 eastbound ramps, and five lanes between the eastbound ramps and Airway Road. The Cross Border Facility project includes reclassifying and construction of this segment to six lanes as project mitigation. The SR-905 on and off ramp intersections are closely spaced so that parking and access should be restricted along these segments.

In addition Britannia Boulevard will also be the designated truck route for southbound laden trucks between SR-905 and the planned truck road parallel to the border.

Therefore, a reclassification to a six lane Primary Arterial is recommended for the segments between Otay Mesa Road and Airway Road. Between Airway Road and Siempre Viva Road, a six lane Major Arterial is recommended. The significant impact to these segments would be mitigated.

- Siempre Viva Road to Southend: level of service “F”.

A reclassification to a four lane Major Arterial is recommended. The significant impact to this segment would be mitigated.

La Media Road

-Birch Road to Lone Star Road: level of service “F”.

The City of Chula Vista is planning to remove the segment of La Media Road crossing the Otay River Valley within Chula Vista from the City of Chula Vista General Plan Circulation Element. However, the traffic volumes for this segment for this scenario are based on including this segment in the traffic model. Due to the need to construct a lengthy bridge through the Otay River Valley, the cost of this segment may be prohibitive so that a reclassification from six lanes to a wider roadway is not recommended. The significant impact to this segment would be unmitigated.

-Lone Star Road to Otay Mesa Road: level of service “F”.

Construction as an eight lane facility rather than six lanes would require encroachment into environmentally sensitive land and the Brown Field Airport on the west side, and is not recommended. The segment significant impact would be unmitigated.

- SR-905 to Airway Road: level of service “F”.

The addition of lanes to this currently classified six lane Primary Arterial would require a costly modification to the SR-905 interchange and is not recommended. The segment significant impact would be unmitigated.

- Airway Road to Siempre Viva Road: level of service “D”.

The northerly segment is recommended to be classified as a five lane Major Arterial. Three southbound lanes would transition to two lanes, with two northbound lanes. The southerly segment would remain as currently classified, a four lane Major Arterial.

Harvest Road

- Otay Center Drive to Siempre Viva Road: level of service “E”.

A reclassification from a four lane Major Arterial is not recommended for this segment. Widening to six lanes would not be cost effective. The significant impact to this segment would be unmitigated.

Lone Star Road

- La Media Road to SR-125: level of service “E”.
- SR-125 to City / County Boundary: level of service “F”

A reclassification to a six lane Primary Arterial is recommended. The significant segment impact would be mitigated.

Aviator Road

- Heritage Road to La Media Road: level of service “F”.

This segment is recommended to be added to the circulation element as a four lane Collector (without left turn lane). The significant segment impact would be mitigated.

Dennery Road

-Red Coral Lane to Black Coral Lane: level of service “E”.

-Black Coral Lane to East End: level of service “F”.

This street is completely constructed adjacent to residential areas.

A reclassification is not recommended. Retaining a two lane Collector (with left turn lane) classification between Red Coral and Black Coral Lanes, and a two lane Collector (with no fronting property) from Black Coral Lane to the east end would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Avenida De Las Vistas

- Vista Santo Domingo to Dennery Road: level of service “F”.

A reclassification is not recommended. This street is fully constructed and has adjacent single family residences. Retaining a two lane Collector (without fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Del Sol Boulevard

- Surf Crest Drive to Riviera Pointe: level of service “F”.

This segment will pass through environmentally sensitive lands and is on a slope. Retaining the two lane Collector (without fronting property) classification would minimize impacts to the MSCP land and discourage speeding and through traffic not destined to the adjacent residential development.

- Riviera Pointe to Dennerly Road: level of service “E”.

This segment is fully constructed and surrounded by environmentally sensitive land and single family development. A reclassification to four lanes is not recommended. This significant segment would be unmitigated.

Old Otay Mesa Road

- Crescent Bay Drive to Beyer Boulevard: level of service “F”.

This segment of Old Otay Mesa Road is situated on a steep, rocky hillside that would be costly to widen. Therefore, no reclassification is recommended. The significant segment impact would remain unmitigated.

Corporate Center Drive

- Progressive Avenue to Innovative Drive: level of service “F”.

A reclassification is not recommended. This street is fully constructed with adjacent developments. Retaining a two lane industrial Collector (without left turn lane) classification would discourage through traffic not destined to / from the adjacent uses. The significant segment impact would be unmitigated.

Sanyo Avenue

- Otay Mesa Road to Airway Road: level of service “F”.

This segment is constructed as a four lane Collector (without left turn lane) and is to be added to the circulation plan. Widening to a four lane Major Arterial width would adversely affect adjacent development, but minor widening to accommodate a central left turn lane and a reclassification to a four lane Collector (with left turn lane) is recommended. The segment significant impact would remain significant and unmitigated.

Heinrich Hertz Drive

- Airway Road to Paseo de las Americas: level of service “E”.

This segment is constructed as a two lane Collector with left turn lanes at intersections and is to be added to the circulation plan as a two lane Collector (with left turn lane). Widening to a four lane Major Arterial

would adversely affect adjacent properties. The segment significant impact would remain significant and unmitigated.

Paseo De Las Americas

- Airway Road to Siempre Viva Road: level of service “F”.
- Siempre Viva Road to Marconi Drive: level of service “F”.

These segments are currently classified as a two lane Collector but are fully constructed with four lanes, including raised medians from Heinrich Hertz Drive to Siempre Viva Road and from Siempre Viva Road to Via de la Amistad. A reclassification to a four lane Major Arterial is recommended for the segment north of Siempre Viva Road and four lane Collector (with left turn lane) south of Siempre Viva Road. The significant segment impacts would be mitigated.

Marconi Drive

- Paseo de las Americas to Enrico Fermi Drive: level of service “F”.

This segment is constructed as a two lane industrial Collector, and is wide enough to be striped with two lanes and a continuous central left turn lane. Widening to a four lane Collector width would adversely affect adjacent properties. A two lane Collector (with left turn lane) classification is recommended. Although this restriping would add capacity, the segment significant impact would remain significant and unmitigated.

St. Andrews Avenue

- Otay Mesa Center Road to La Media Road: level of service “F”.

Although currently classified as a two lane Collector, this segment is constructed with four lanes. The segment significant impact would be mitigated with a change in classification to a four lane Collector (with left turn lane).

Gailes Boulevard

- Otay Mesa Road to St. Andrews Avenue: level of service “F”.

This street is constructed with four lanes and a raised median. A reclassification from a two lane Collector to a four lane Collector (without two-way left turn lane) is recommended and would mitigate the significant segment impact.

Camino Maquiladora

- Heritage Road to Pacific Rim Ct.: level of service “E”.

This segment serves adjacent industrial uses, but has diverted traffic from Otay Mesa Road. This segment is not meant to be a through traffic by-pass route and is not recommended for reclassification. The significant segment impact would be unmitigated.

Progressive Avenue

- Corporate Center Drive to Innovative Drive: level of service “F”.

This segment is constructed as a two lane industrial Collector (without left turn lane) and serves adjacent industrial uses, but has diverted traffic from Heritage Road. This segment is not meant to be a through traffic by-pass route. A reclassification to four lanes is not recommended. The significant segment impact would remain unmitigated.

Otay Mesa Center Road

- Otay Mesa Road to St. Andrews Avenue: level of service “F”.

This segment is classified as a two lane Collector but is constructed with four lanes without a two way left turn lane. A reclassification to a four lane Major Arterial is recommended. The significant segment impact would be mitigated.

Datsun Street

- Innovative Drive to Heritage Road: level of service “F”.

This segment is planned to serve the adjacent industrial uses, but has high volumes due to traffic diverted from Heritage Road. This segment is not meant to be a through traffic by-pass route. A classification as a four lane Collector (with left turn lane) is recommended, rather than a four lane Major Arterial. The significant segment impact would remain unmitigated.

Avenida Costa Azul

- Otay Mesa Road to St. Andrews Avenue: level of service “E”.

Add to circulation plan as a four lane Collector (with left turn lane). The significant segment impact would be mitigated by this classification.

Excellante Street / Gigantic Street / Centurion Street

- All segments at level of service “F”.

These streets are fully constructed four lane Collector (without left turn lane) loop streets that will serve adjacent development. No reclassification is recommended. The significant segment impacts would remain unmitigated.

Exposition Way / Vista Santo Domingo

- Avenida de las Vistas to Corporate Center Drive: level of service “F”.

This segment has high volumes due to diverted traffic from Otay Valley Road. Vista Santo Domingo is constructed as a two lane Collector (no fronting property) within a residential area and is not meant to be a by-pass route for through traffic, so that retaining this classification would discourage speeding, and through traffic not destined for the adjacent residential neighborhoods. A reclassification is not recommended. The significant segment impact would remain unmitigated.

Figure 5-3 shows recommended roadway classifications for the “No Project” buildout Community Plan scenario.

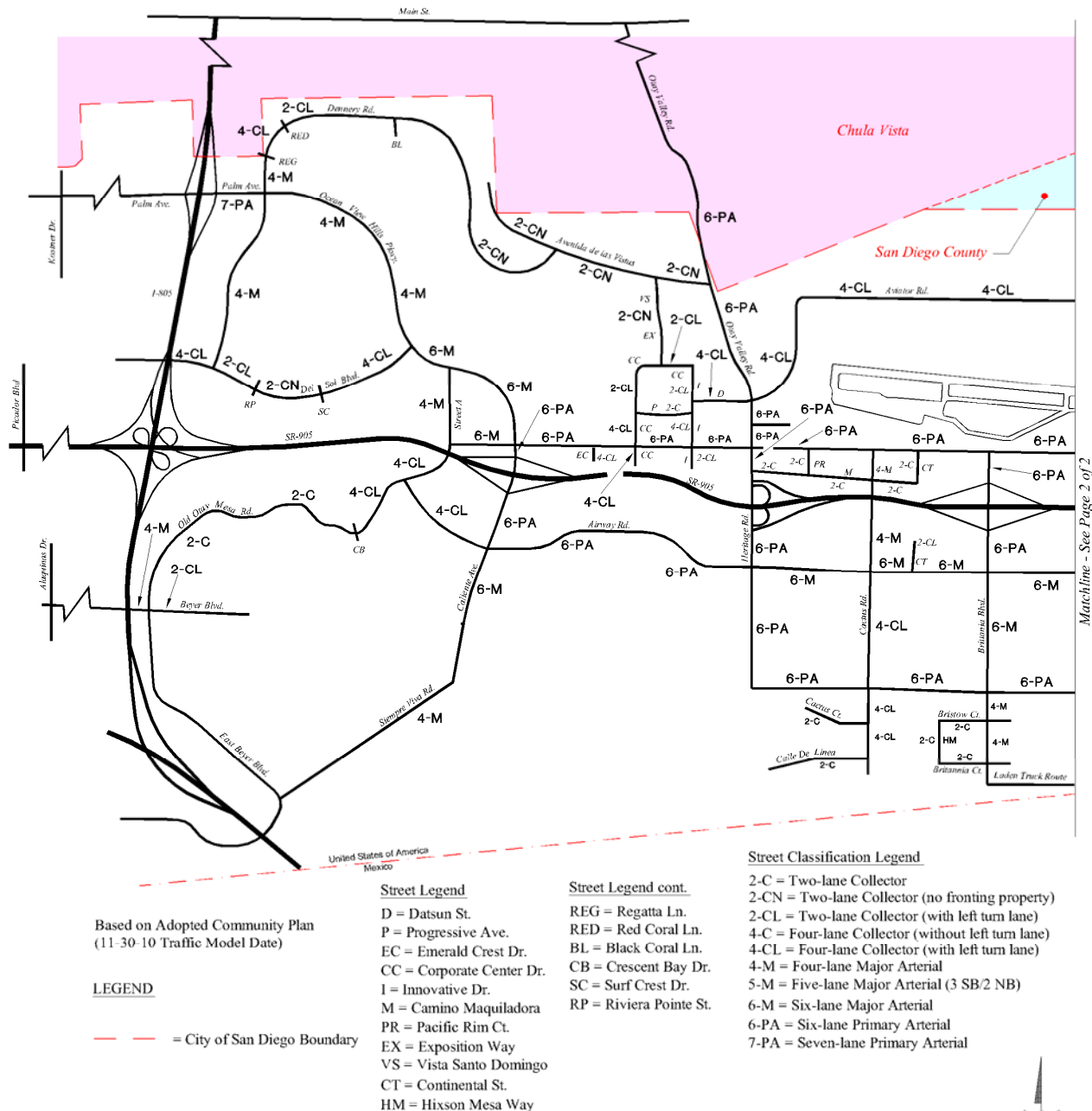
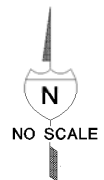


FIGURE 5-3
Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations



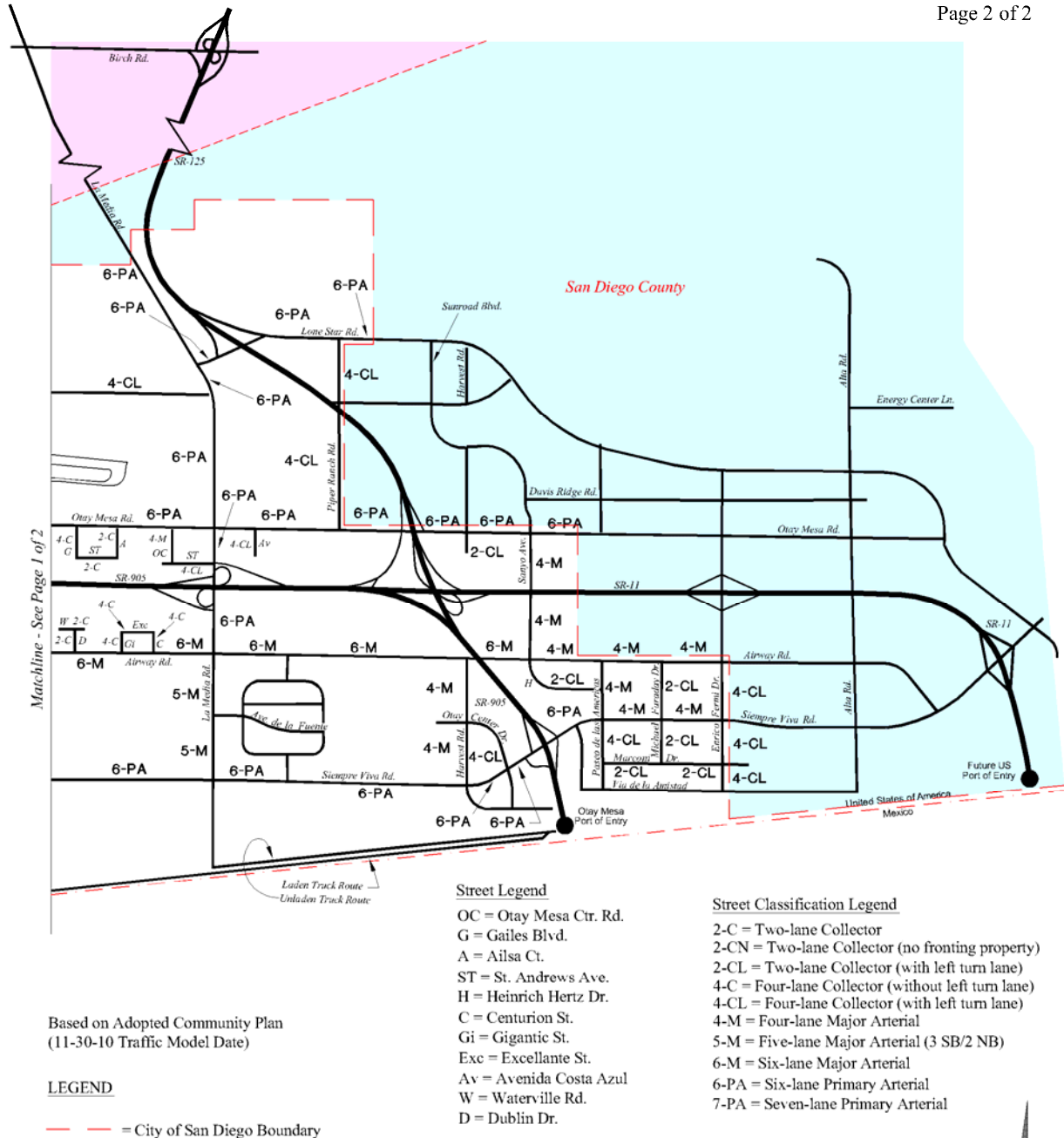


FIGURE 5-3
Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations

5.3 Freeway Levels of Service

Table 5-2 lists freeway segments evaluated for the “No Project” buildout Community Plan scenario.

Segments of Interstate 805 north of State Route 905 are projected to be significantly impacted by Otay Mesa Community Plan and regional cumulative traffic. With existing lanes and an additional northbound auxillary lane currently being constructed between SR-905 and Palm Avenue, the segment of I-805 north of SR-905 are expected to be at level of service “F”. The Adopted SANDAG 2050 Regional Transportation Plan (RTP) includes two managed lanes on I-805 in each direction north of SR-905. With these additional lanes, the segment of I-805 between Main Street and Palm Avenue would be at level of service “E”. The segment between Palm Avenue and SR-905 would be at level of service “D” during peak hours.

State Route 905 is assumed with six lanes and auxillary lanes as is being constructed by Caltrans. Impacts would be significant and unmitigated between Picador Boulevard and La Media Road. State Route 905 has been designed so that median High Occupancy Vehicle (HOV) lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service.

Table 5-2-A shows freeway levels of service with HOV lanes added to segments at level of service “F”.

TABLE 5-2

Buildout Adopted Community Plan Freeway Segment Levels of Service

Segment		Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split(5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,300	144,500	0.08	0.6	0.90	7,707	1.22	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,650	253,500	0.08	0.6	0.90	13,520	1.56	F3
	Caliente Ave. to Heritage Rd.	3	7,050	224,000	0.08	0.6	0.90	11,947	1.68	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	193,000	0.08	0.6	0.90	10,293	1.46	F3
	Britannia Blvd. to La Media Rd.	3	7,050	167,000	0.08	0.6	0.90	8,907	1.26	F1
	La Media Rd. to SR-125	3	7,050	121,000	0.08	0.6	0.90	6,453	0.92	E
	SR-125 to Siempre Viva Rd.	3	7,050	103,000	0.08	0.6	0.90	5,493	0.78	C
	Siempre Viva Rd. to Border	3	7,050	64,500	0.08	0.6	0.90	3,440	0.48	B
I-805	Main St. to Palm Ave.	4	9,400	263,000	0.08	0.6	0.90	14,027	1.49	F3
	Palm Ave. to SR-905	4	9,400	232,500	0.08	0.6	0.90	12,400	1.32	F1
	SR-905 to I-5	4	9,400	107,500	0.08	0.6	0.90	5,733	0.60	B
	I-5 to Border	6	14,100	127,500	0.08	0.6	0.90	6,800	0.48	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,700	102,500	0.08	0.6	0.90	5,467	0.56	E
	Lone Star Rd. to SR-905	4 (Toll)	9,700	76,000	0.08	0.6	0.90	4,053	0.42	C
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	50,500	0.08	0.6	0.90	2,693	0.57	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	25,000	0.08	0.6	0.90	1,333	0.28	A
	Siempre Viva Rd. to Border	2	4,700	39,500	0.08	0.6	0.90	2,107	0.45	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

Note:

(1) Year 2030 Forecast Volume, Average Daily Traffic Volume (9-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source: Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

F

= Shading indicates a significant impact.

TABLE 5-2-A

Buildout Adopted Community Plan

Freeway Segment Levels of Service

(With HOV Lanes Added To LOS F Segments)

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Hour % (5)	Direction Split (5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	144,500	0.08	0.6	0.90	7,707	0.95	E
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	249,000	0.08	0.6	0.90	13,280	1.31	F1
	Caliente Ave. to Heritage Rd.	+H	3	8,650	220,500	0.08	0.6	0.90	11,760	1.36	F2
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	192,000	0.08	0.6	0.90	10,240	1.18	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	165,000	0.08	0.6	0.90	8,800	1.02	F0
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	264,000	0.08	0.6	0.90	14,080	0.98	E
	Palm Ave. to SR-905	+2H	4+AUX	14,400	234,500	0.08	0.6	0.90	12,507	0.87	D

Legend

Cap = Capacity of Segment

Mainlane Cap. @ 2,350 VPHPL

Auxillary Lane Cap. @ 1,800 VPHPL

HOV Lane Cap. @ 1,600 VPHPL

Climbing Lane Cap. @ 1,500 VPHPL


ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

 = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (11-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source: Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

SR-905 HOV lanes are not currently in the Regional Transportation Plan and are not funded.

5.4 Intersection Levels of Service

Table 5-3 shows the “No Project” buildout Community Plan scenario intersection levels of service with and without recommended mitigation. **Figure 5-4** is the intersection number key showing locations of the listed intersections.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. All intersections will be signalized. Lane configurations at intersections with mitigation identified are included in **Appendix B**. Also included are peak hour volumes at each intersection and intersection levels of service worksheets.

Mitigation beyond the lane configurations required in the City of San Diego Street Design Manual or at freeway ramps is recommended at 45 of 53 intersections evaluated.

Of the 53 intersections evaluated, 46 intersections are expected to be at level of service “E” or “F” during the AM peak hour and 48 during the PM peak hour. With feasible mitigation, 35 intersections would remain to operate unacceptably in the AM peak hour and ~~36~~ 37 intersections would remain to operate unacceptably in the PM peak hour. Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a degraded level of service, as footnoted in Table 5-3. **Table 5-4** shows lane configurations at each intersection and also shows lanes to be added after mitigation.

The SR-905 interchanges at Caliente Avenue and at La Media Road are recommended for major improvements. The Caltrans designs of these interchanges are based on forecasts of future traffic from the build out of only approximately fifty percent of Otay Mesa land uses. The Heritage Road interchange currently does not have a final, funded design, so that the lane configurations at the ramp intersections included in this report should be incorporated into the final design.

TABLE 5-3

**Buildout Adopted Community Plan
Intersection Levels of Service**

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	64.8	E	111.7	F	36.6	D	71.5	E
2	Palm Ave. / I-805 NB Ramps	167.1	F	172.8	F	5.6	A	8.9	(1) A
3	Palm Ave. / Dennerly Rd.	36.0	D	69.4	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	359.8	F	201.6	F	236.3	F	102.0	F
5	Caliente Ave. / SR-905 WB Ramps	154.1	F	162.7	F	64.7	E	57.4	E
6	Caliente Ave. / SR-905 EB Ramps	225.9	F	214.7	F	92.9	F	56.8	E
7	Caliente Ave. / Airway Rd.	347.1	F	510.6	F	326.2	F	396.2	F
8	Caliente Ave. / Siempre Viva Rd.	86.4	F	82.0	F	-	-	-	-
9	Otay Mesa Rd. / Heritage Rd.	350.5	F	286.1	F	285.8	F	155.8	F
10	Heritage Rd. / SR-905 WB Ramps	36.8	(1) D	240.9	F	14.6	B	13.2	B
11	Heritage Rd. / SR-905 EB Ramps	64.3	E	127.7	F	50.4	(1) D	(1) 45.7	(1) D
12	Heritage Rd. / Airway Rd.	457.0	F	555.0	F	143.3	F	225.6	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	481.3	F	302.6	F	249.9	F	166.0	F
15	Airway Rd. / Cactus Rd.	212.3	F	319.4	F	115.2	F	100.7	F
16	Siempre Viva Rd. / Cactus Rd.	269.6	F	290.1	F	127.9	F	108.2	F
17	Otay Mesa Rd. / Britannia Blvd.	63.8	E	72.0	E	24.0	(1) C	54.1	(1) D
18	Britannia Blvd. / SR-905 WB Ramps	191.8	F	298.2	F	46.7	(1) D	187.9	F
19	Britannia Blvd. / SR-905 EB Ramps	290.0	F	283.7	F	276.0	F	124.5	F
20	Britannia Blvd. / Airway Rd.	453.3	F	490.5	F	218.1	F	206.7	F
21	Siempre Viva Rd. / Britannia Blvd.	502.4	F	494.6	F	208.2	F	302.3	F
22	Otay Mesa Rd. / La Media Rd.	484.5	F	495.7	F	148.3	F	128.0	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

TABLE 5-3 (Continued)

**Buildout Adopted Community Plan
Intersection Levels of Service**

Intersection	Without Mitigation				With Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23 La Media Rd. / SR-905 WB Ramps	257.6	F	335.2	F	117.7	F	195.7	F
24 La Media Rd. / SR-905 EB Ramps	319.2	F	224.8	F	218.5	F	157.6	F
25 La Media Rd. / Airway Rd.	786.8	F	654.3	F	236.9	F	338.7	F
26 La Media Rd. / Siempre Viva Rd.	303.0	F	238.6	F	90.6	F	102.7	F
27 La Media Rd. / Lone Star Rd.	547.7	F	755.8	F	399.5	F	492.2	F
28 Lone Star Rd. / SR-125 SB Off Ramp	52.4	(1) D	14.4	(1) B	-	-	-	-
29 Lone Star Rd. / SR-125 NB On Ramp	3.3	(1) A	7.2	(1) A	-	-	-	-
30 Lone Star Rd. / Piper Ranch Rd.	67.5	E	15.4	B	43.2	D	15.2	B
31 Otay Mesa Rd. / Piper Ranch Rd.	274.0	F	284.6	F	89.7	F	165.7	F
32 Otay Mesa Rd. / SR-125 SB Off Ramp	40.2	(1) D	7.9	(1) A	16.5	(1) B	7.3	A
33 Otay Mesa Rd. / SR-125 NB On Ramp	3.3	(1) A	14.9	(1) B	-	-	-	-
34 Otay Mesa Rd. / Harvest Rd.	132.3	F	87.2	F	34.1	C	41.9	(1) D
35 Siempre Viva Rd. / Otay Center Dr.	298.0	F	471.8	F	235.5	F	225.9	F
36 Siempre Viva Rd. / SR-905 SB to EB Ramp	149.3	F	248.1	F	-	-	-	-
36A Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 4,196	F	(2) 899.3	F	292.5	F	40.4	(1) D
37 Siempre Viva Rd. / SR-905 NB Ramps	150.8	F	431.7	F	144.1	F	355.8	F
38 Siempre Viva Rd. / Paseo de las Americas	648.7	F	751.0	F	352.0	F	430.7	F
39 Dennery Rd. / Del Sol Blvd.	104.7	F	72.2	E	-	-	-	-
40 Ocean View Hills Pkwy. / Del Sol Blvd.	172.7	F	192.2	F	68.2	E	132.4	F
41 Ocean View Hills Pkwy. / Street A	162.6	F	258.4	F	49.8	D	51.9	D
42 Old Otay Mesa Rd. / Beyer Blvd.	623.1	F	638.2	F	47.7	D	46.0	D
43 Otay Mesa Rd. / Corporate Center Dr.	146.2	F	125.8	F	103.7	F	96.5	F
44 Otay Mesa Rd. / Innovative Dr.	96.4	F	64.8	E	82.8	F	36.2	D

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

(2) Unsignalized: SB to WB Right Turn at LOS F (AM and PM Peak Hours);

F = Shading indicates a significant impact.

TABLE 5-3 (Continued)

**Buildout Adopted Community Plan
Intersection Levels of Service**

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	41.1	D	238.9	F	38.1	D	101.5	F
46	Harvest Rd. / Siempre Viva Rd.	239.9	F	230.4	F	203.8	F	221.1	F
47	Otay Mesa Rd. / Sanyo Ave.	296.7	F	424.5	F	109.9	F	113.5	F
48	Airway Rd. / Sanyo Ave.	740.3	F	371.4	F	178.8	F	131.1	F
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 196.9	F	(3) 440.2	F	10.4	B	15.0	B
50	Paseo de las Americas / Marconi Dr.	(4) 57.8	F	(4) 268.1	F	4.6	A	60.6	E
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	531.8	F	676.7	F	181.3	F	290.3	F
52	Aviator Rd. / La Media Rd.	159.9	F	79.4	E	102.4	F	54.4	D
53	Otay Valley Rd. / Avenida De Las Vistas	850.4	F	361.8	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay values higher than two times the LOS E value of 80.0 seconds.

Legend

CD = Control Delay

LOS = Level of Service

(3) Unsignalized: Northbound Left, Eastbound Left and Right Turns at LOS F (AM and PM Peak Hours)

(4) Unsignalized: Southbound Left, Westbound Left Turns at LOS F (AM Peak Hour);

Westbound Right Turn at LOS F (PM Peak Hour).

For unsignalized intersections, LOS F is at greater than 50.0 seconds delay / vehicle.

F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
<i>Source: 2000 Highway Capacity Manual</i>	

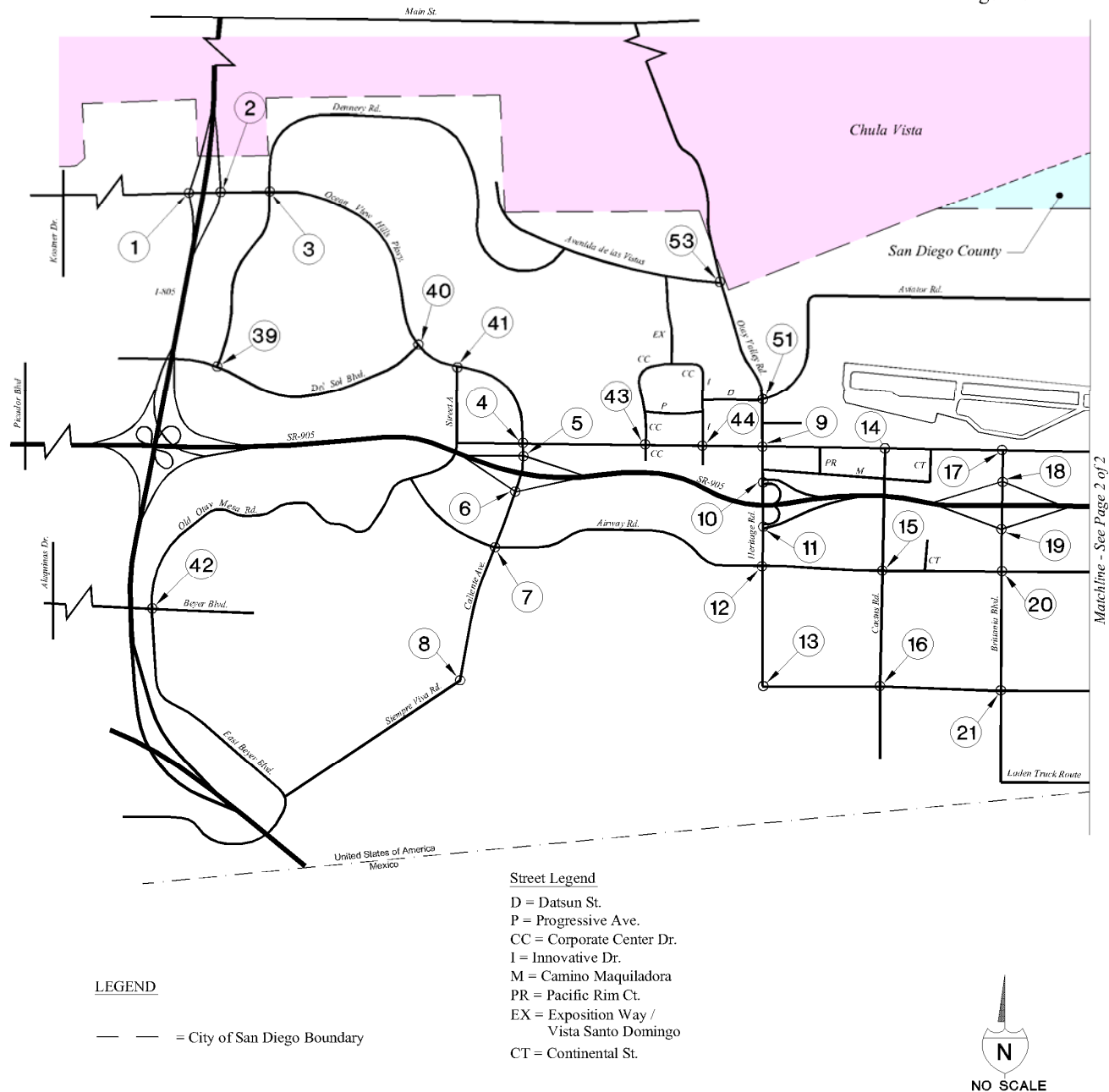


FIGURE 5-4
Adopted Community Plan
Intersection Number Key

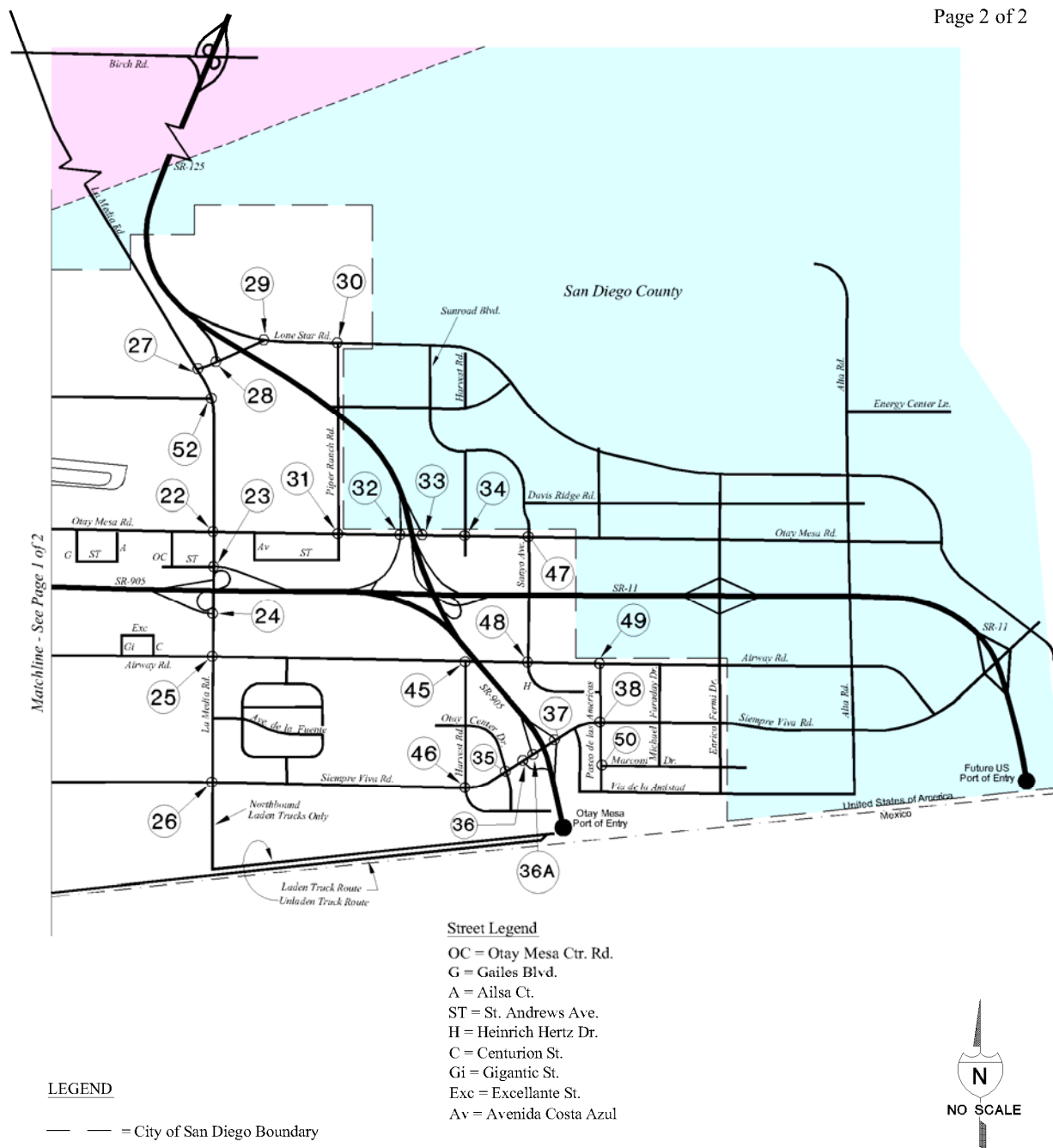


FIGURE 5-4
Adopted Community Plan
Intersection Number Key

TABLE 5-4

Intersection Mitigation Buildout Adopted Community Plan

Intersection	Without Mitigation												With Mitigation											
	NB			SB			EB			WB			NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
1 Palm Ave. / I-805 SB Ramps				1	1*	1		2	1	2	2					1	1*	2		2	1	2	2	
2 Palm Ave. / I-805 NB Ramps	S	1*	1				2	2			2	1	1	1*	1				3	1		3	2	
3 Palm Ave. / Dennerly Rd.	3	1	S	2	2	1	2	3	1	2	3	1												
4 Otay Mesa Rd. / Caliente Ave.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	S	2	3	1	2	3	1
5 Caliente Ave. / SR-905 WB Ramps	1	3			3*	S						S	1	1		2	3		3	1			S	1
6 Caliente Ave. / SR-905 EB Ramps		3	S	1	3		1	1*	S							3	1	2	3		1	1*	1	
7 Caliente Ave. / Airway Rd.	2	3	S	2	3	S	2	2	S	2	2	1	2	3	1	2	3	S	2	2	1	2	2	1
8 Caliente Ave. / Siempre Viva Rd.				1		2	2	1				1	1											
9 Otay Mesa Rd. / Heritage Rd.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2
10 Heritage Rd. / SR-905 WB Ramps		3	S	2	3						S	2		3	2	2	3					S		2
11 Heritage Rd. / SR-905 EB Ramps		3	S	2	3						2	S		3	1	2	3					2		1
12 Heritage Rd. / Airway Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	1	2	3	2	2	3	2	2	3*	1
13 Heritage Rd. / Siempre Viva Rd.				2																				
14 Otay Mesa Rd. / Cactus Rd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	2	2	3	1
15 Airway Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2*	1	2	3*	1	2	3	1
16 Siempre Viva Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	1	2	3	1	2	3	2
17 Otay Mesa Rd. / Britannia Blvd.	2		2					3	S	2	3		2		2				3	1	2	3		
18 Britannia Blvd. / SR-905 WB Ramps	2	3			3	S				1	1*	1	2	3		3*	1					1	1*	1
19 Britannia Blvd. / SR-905 EB Ramps		3	S	2	3		S	1	2				3	2	2	3		S	1	2				
20 Britannia Blvd. / Airway Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	2	2	3	2	2	3	1	2	3	2
21 Siempre Viva Rd. / Britannia Blvd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	2	2	3	2	2	3	2
22 Otay Mesa Rd. / La Media Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	2	2	3	2	2	3	2	2	3	2

Legend

L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

* Notes: #1-SB through is shared LTR without mitigation; shared LT with mitigation.

#2-NB through is shared LTR.

#4-WB lanes are restriped for 2T-2R.

#5-SB is 2T-TR-R without mitigation.

#6-EB through is shared LTR without mitigation, shared LT with mitigation.

#12-WB through has shared TR.

#14-NB through is shared TR.

#15-SB through is shared TR.

#15-EB through is shared TR.

#18-WB through is shared TR without mitigation..

#18-WB through is shared LTR with mitigation.

#18-SB RT lanes added, 3rd lane restriped for shared TR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 5-4 (Continued)

Intersection Mitigation Buildout Adopted Community Plan

Intersection	Without Mitigation												With Mitigation											
	NB			SB			EB			WB			NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
23 La Media Rd. / SR-905 WB Ramps	2	2	1		3	1	S	1	1	1	1*	1	2	3	1		3	1	1		1	1	1*	1
24 La Media Rd. / SR-905 EB Ramps	2	3			2	1	2		2				2	3			3	1	2		2			
25 La Media Rd. / Airway Rd.	2	2	S	2	3	S	2	3	S	2	3	S	2	2	1	2	3	2	2	3	1	2	3	2
26 La Media Rd. / Siempre Viva Rd.				2	2	S	2	3	S			3	S			2	1	2	2	3			3	2
27 La Media Rd. / Lone Star Rd.	2	3	S	2	3	S	1	1	1	2	3	S	2	3	1	2	3	1	1	1	1	2	1*	2*
28 Lone Star Rd. / SR-125 SB Off Ramp				2		2		3			3													
29 Lone Star Rd. / SR-125 NB On Ramp							2	3			3	2												
30 Lone Star Rd. / Piper Ranch Rd.	2		1					3	S	1	3		2		1					3	1	1	3	
31 Otay Mesa Rd. / Piper Ranch Rd.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1*	2	1	2*	2	3	1	2	3	1
32 Otay Mesa Rd. / SR-125 SB Off Ramp				1	1*	1		3			3					1	1*	1		3			3	
33 Otay Mesa Rd. / SR-125 NB On Ramp							2	3			3	2												
34 Otay Mesa Rd. / Harvest Rd.	1	1	S	1	1	S	1	3	S	1	3	S	2	1	S	1	1	S	1	3	1	1	3	1
35 Siempre Viva Rd. / Otay Center Dr.	1	1	S	1	2	S	1	3	S	1	3	S	1	1	1	2	1	1	2	3	1	2	3	1
36 Siempre Viva Rd. / SR-905 SB to EB Ramp			2					3	S	2	3													
36A Siempre Viva Rd. / SR-905 SB to WB Ramp						1					3						2						3	
37 Siempre Viva Rd. / SR-905 NB Ramps	S	1	2				2	3			3*	1	S	1	2				2	3			3	2
38 Siempre Viva Rd. / Paseo de las Americas	1	2	S	1	2	S	1	3	1	1	3	S	1	1*	1*	1	1	2	2	3	1	1	3	1
39 Dennery Rd. / Del Sol Blvd.				1		1	1	2			2	S												
40 Ocean View Hills Pkwy. / Del Sol Blvd.	2	3	S	1	2	S	1	1	1	1	1	S	2	3	S	1	2	1	1*	1*	1	1	1	S
41 Ocean View Hills Pkwy. / Street A	1	1	1	1	1	S	1	3	S	1	3	S	2	1	1	1	1	S	1	3	2	1	3	S
42 Old Otay Mesa Rd. / Beyer Blvd.	1	1	S	1	1	S	2	2	1	2	2	S	1	1	S	1	1	1	2	2	1	2	2	S
43 Otay Mesa Rd. / Corporate Center Dr.	2	1	S	1	1*	1	2	3	S	2	3	1	2	1	S	2	1*	1	2	3	1	2	3	1
44 Otay Mesa Rd. / Innovative Dr.	1	1	S	1	1*	1	2	3	S	2	3	1	1	1	S	2	1*	1	2	3	S	2	3	1

Legend

L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

*Notes:

#23-WB middle lane is shared LT.
#27-WB lanes restriped for 2L-T-2R.
#31-NB lanes restriped for 2L-1T-Add R.
#31-SB lanes restriped for 2L-1T-Add 2R.
#32-SB middle lane L without mitigation, shared LR with mitigation.
#37-WB lanes striped for 2T-TR-R.
#38-NB lanes restriped for L-LT-R.
#40-EB lanes restriped for L-LT-R.
#43-SB middle lane is shared TR.
#44-SB middle lane is shared TR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 5-4 (Continued)

Intersection Mitigation Buildout Adopted Community Plan

Intersection		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
45	Harvest Rd. / Airway Rd.	2		1					3	S	2	3		2		1					3	1	2	3	
46	Harvest Rd. / Siempre Viva Rd.	1	2	S	2	2	S	2	3	S	2	3	S	1	2	S	2	2	1	2	3	S	2	3	1
47	Otay Mesa Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	1	1	1	2	3	2	2	3	1
48	Airway Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	2	S	2	2	1	2	2	2	2	2	2	2	2	1
49	Paseo de las Americas / Heinrich Hertz Dr.	1	2			2	S	1		1				2	2			2	S	1		2			
50	Paseo de las Americas / Marconi Dr.		2	S	1	2					1		1		2	S	2	2					1		1
51	Heritage Rd. / Otay Valley Rd.	2	3	S	2	3	S	1	2	S	1	2	S	2	3	1	2	3	2	2	2	1	2	2	1
52	Aviator Rd. / La Media Rd.	2	3			3	S	2		1				2	3			3	1	2		1			
53	Otay Valley Rd. / Avenida De Las Vistas	1	3	S	1	3	S	1	1	S	1	1	1												

Legend

L = left turn lanes

T = through lanes

R = right turn lanes

S = shared lane

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

Provided below is a summary of mitigation recommended at the interchanges and major intersections. Some intersection impacts are not proposed to be fully mitigated, usually because it would require excessively wide intersections and turning lanes and non-standard intersection configurations.

#1 & #2. I-805 Southbound and Northbound Ramps / Palm Avenue – The Otay Mesa P.F.F.P includes a bridge widening project at this location. The preliminary design includes a third through lane in each direction, an additional westbound right turn lane (total of two), northbound off- ramp widening for an additional lane (total of three), southbound off-ramp widening for an additional lane (total of four), and the addition of a fourth eastbound lane and a loop on-ramp in the southeast quadrant.

#4. Caliente Avenue / Otay Mesa Road – At this intersection of two six-lane Primary Arterials, a separate right turn only lane in the northbound direction is recommended. Although the northbound right turn volumes are expected to be high enough to warrant dual right turns, this intersection is near San Ysidro High School and in the interest of pedestrian safety and convenience, the dual right turns are not recommended.

#5. Caliente Avenue / SR-905 Westbound Ramps – Overcrossing widening to accommodate northbound dual left turn lanes is recommended. Additionally, a single southbound right turn only lane is recommended. Caliente Avenue is a school pedestrian route to the San Ysidro High School. Although the southbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turns are not recommended.

#6. Caliente Avenue / SR-905 Eastbound Ramps - Overcrossing widening to accommodate dual northbound left turn lanes at the SR-905 westbound ramps also should extend through this intersection, accommodating dual southbound left-turn lanes. A separate northbound right turn lane is recommended. Ramp widening in the eastbound direction for an added right turn lane is recommended. Although the eastbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#7. Caliente Avenue at Airway Road - Separate right turn only lanes are recommended in the eastbound, northbound, and westbound directions. Although the northbound and westbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#9. Heritage Road / Otay Mesa Road - Separate right turn only lanes are recommended in the northbound and southbound directions. Existing right turn lanes are in place eastbound and westbound. A second westbound right turn lane is recommended.

#10. Heritage Road / SR-905 Westbound Ramps - Two right turn only lanes are recommended in the northbound direction onto the westbound on-ramp.

#11. Heritage Road / SR-905 Eastbound Ramps - A separate right turn lane in the northbound direction to the eastbound on-ramp, plus an added right turn lane in the westbound direction on the eastbound off-ramp are recommended.

#12. Heritage Road / Airway Road – Dual right turn lanes are recommended in the southbound and eastbound directions. Separate single right turn lanes are recommended in the northbound and westbound directions. The westbound #3 lane should be a shared through / right turn lane.

#14. Cactus Road / Otay Mesa Road - Dual right turn lanes in the eastbound direction, and one right turn lane in the westbound direction are recommended.

#15. Cactus Road / Airway Road - Dual right turn lanes in the westbound direction, and single right turn lanes are recommended in the south, north, and eastbound directions. The outer through lane eastbound and southbound are recommended to be shared through / right lanes.

#16. Cactus Road / Siempre Viva Road - Dual right turn lanes in the westbound direction and single right turn lanes are recommended in the south, north, and eastbound directions.

#17. Britannia Boulevard / Otay Mesa Road - A single right turn only lane in the eastbound direction is recommended.

#18. Britannia Boulevard / SR-905 Westbound Ramps - A single southbound right turn lane, and also restriping the third southbound through lane as an optional through / right turn is recommended. Restriping the westbound middle lane for a shared left / through / right turn lane is recommended.

#19. Britannia Boulevard / SR-905 Eastbound Ramps - Dual right turn lanes northbound are recommended.

#20. Britannia Boulevard / Airway Road - Dual right turn lanes in the north, south, and westbound directions, and a single right turn lane in the eastbound direction are recommended.

#21. Britannia Boulevard / Siempre viva Road - Dual right turn lanes in the east, west, and southbound directions, and a single right turn lane in the northbound direction are recommended.

#22. La Media Road / Otay Mesa Road – Dual right turn lanes are recommended at all approaches.

#23. La Media Road / SR-905 Westbound Ramps – The Caltrans design for the SR-905 / La Media Road interchange is based on future traffic estimates from the build out of only approximately fifty percent of Otay Mesa land uses and improvements will be needed to accommodate full build out. It is recommended that the eastbound through movement be eliminated so that the northbound right turn to the SR-905 westbound on-ramp can be a continuous movement, without a conflicting movement at the traffic signal. Only a pedestrian signal would cause this traffic to stop. Additionally a third northbound through lane is recommended. These recommended improvements would require widening in the northbound direction along La Media Road.

#24. La Media Road / SR-905 Eastbound Ramps - The addition of a third southbound through lane is recommended. This improvement would require widening La Media Road in the southbound direction.

#25. La Media Road / Airway Road - The addition of dual right turn lanes westbound and southbound, and single right turn lanes eastbound and northbound are recommended.

#26. La Media Road / Siempre Viva Road - The addition of dual right turn lanes westbound, and one right turn lane southbound are recommended. The southbound lanes should be stiped for two lefts / one through / two right turn lanes. The southbound through lane will be restricted to unladen trucks destined to the Border Truck Road.

#27. La Media Road / Lone Star Road - Northbound and southbound right turn lanes are recommended. The three westbound through lanes are recommended to be striped for one through and two right turn lanes.

#30. Piper Ranch Road / Lone Star Road – An eastbound right turn lane is recommended.

#31. Piper Ranch Road / Otay Mesa Road – Single right turn lanes in the east, west, and northbound directions are recommended. Southbound, two right turn lanes are recommended.

#32. SR-125 Southbound Off-Ramp / Otay Mesa Road – No additional lanes are recommended, but restriping the southbound middle lane for optional left / right turns is recommended.

#34. Harvest Road / Otay Mesa Road – Additional east and westbound right turn lanes are recommended. An additional northbound left turn lane is also recommended.

#35. Otay Center Drive / Siempre Viva Road - Added lanes for right turns are recommended at all approaches. Dual left turn lanes are recommended east, west, and southbound.

#36 -36A. SR-905 Southbound Ramps / Siempre Viva Road – The SR-905 southbound off-ramp to westbound Siempre Viva Road is recommended to be signalized, and widened for an additional southbound right turn lane.

#37. SR-905 Northbound Ramps / Siempre Viva Road – A second westbound right turn lane is recommended.

#38. Paseo de las Americas / Siempre Viva Road - Added westbound and southbound right turns are recommended, plus an eastbound left turn lane. The northbound lanes should be restriped for one left, one left /through, one right turn lane.

#40. Ocean View Hills Parkway / Del Sol Boulevard - One added southbound right turn lane is recommended. The eastbound through lane should be restriped for optional left turns / through.

#41. Ocean View Hills Parkway / Street “A” - Eastbound dual right turn lanes and an added northbound left turn lane are recommended.

#42. Old Otay Mesa Road / Beyer Boulevard - A southbound right turn lane is recommended.

#43. Otay Mesa Road / Corporate Center Drive - Northbound and southbound added left turn lanes, and a separate eastbound right turn lane are recommended.

#44. Otay Mesa Road / Innovative Drive - A second southbound left turn lane is recommended.

#45. Airway Road / Harvest Road - An eastbound right turn lane is recommended.

#46. Harvest Road / Siempre viva Road - Separate right turn lanes are recommended westbound and southbound.

#47. Otay Mesa Road / Sanyo Avenue - Eastbound dual right turn lanes, and single right turn lanes northbound and westbound are recommended. Restriping northbound lanes for dual left turns plus one through lane is recommended.

#48. Airway Road / Sanyo Avenue - Dual right turn lanes in the eastbound direction are recommended, to be provided by widening for one lane and restriping the third through lane for right turns only. Added single right turn lanes northbound and westbound are recommended. Northbound and southbound added lanes for dual left turns are recommended.

#49. Paseo de las Americas / Heinrich Hertz Drive - The installation of traffic signal and widening for an added northbound left turn lane and an eastbound right turn lane are recommended.

#50. Paseo de las Americas / Marconi Drive - The installation of a traffic signal and adding a southbound left turn lane are recommended.

#51. Heritage Road / Otay Valley Road - Dual right turn lanes southbound, and single right turn lanes at the other approaches are recommended. East and westbound dual left turn lanes are recommended.

#52. La Media Road / Aviator Road - A southbound right turn lane is recommended.

5.5 Ramp Meter Operations

Table 5-5 shows buildout ramp meter operations at all the freeway on-ramps within the study area.

The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. Of the 28 hours ramps meters were evaluated during AM and PM peak hours, ramp meter delays above 15 minutes would occur at six locations during the AM peak hour and at eleven locations during the PM peak hour.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service “E” or “F”. The following six ramp locations would be significantly impacted using this significance criteria:

- I-805 / Palm Avenue Northbound (From Westbound) (AM and PM);
- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (PM);
- SR-905 / Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

The freeway on-ramps evaluated would have ramp lengths from 650 feet to 1,200 feet. Assuming two lanes at the ramp meters, six locations would have queues exceeding the ramp storage length during the AM peak hour, and at eleven locations during the PM peak hour, as footnoted in Table 5-5.

TABLE 5-5

Buildout Community Plan Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	I-805 / Palm Avenue Northbound (From Westbound)	1,505	960	545	34.1	13,625 (E)
PM	I-805 / Palm Avenue Northbound (From Westbound)	1,620	960	660	41.3	16,500 (E)
AM	I-805 / Palm Avenue Northbound (From Eastbound)	725	960	None	None	None
PM	I-805 / Palm Avenue Northbound (From Eastbound)	595	960	None	None	None
PM	I-805 / Palm Avenue Southbound	690	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Caliente Avenue Westbound	1,780	960	820	51.2	20,500 (E)
PM	SR-905 / Caliente Avenue Westbound	1,895	960	935	58.4	23,375 (E)
AM	SR-905 / Caliente Avenue Eastbound	480	960	None	None	None
PM	SR-905 / Caliente Avenue Eastbound	480	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Heritage Road Westbound	850	960	None	None	None
PM	SR-905 / Heritage Road Westbound	2,130	960	1,170	73.1	29,250 (E)
AM	SR-905 / Heritage Road Eastbound	300	960	None	None	None
PM	SR-905 / Heritage Road Eastbound	510	960	None	None	None

Most restrictive meter rate used, per Caltrans

** = Total hourly volume entering from both directions.

(E) = Exceeds ramp storage length.

TABLE 5-5

Buildout Community Plan Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Britannia Blvd. Westbound	1,200	960	240	15.0	6,000 (E)
PM	SR-905 / Britannia Blvd. Westbound	3,205	960	2,245	140.3	56,125 (E)
AM	SR-905 / Britannia Blvd. Eastbound	450	960	None	None	None
PM	SR-905 / Britannia Blvd. Eastbound	1,350	960	390	24.4	9,750 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / La Media Road Westbound	1,705	960	745	46.6	18,625 (E)
PM	SR-905 / La Media Road Westbound	3,610	960	2,650	165.6	66,250 (E)
AM	SR-905 / La Media Road Eastbound	700	960	None	None	None
PM	SR-905 / La Media Road Eastbound	1,720	960	760	47.8	19,000 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Siempre Viva Rd. Northbound	1,365	960	405	25.3	10,125 (E)
PM	SR-905 / Siempre Viva Rd. Northbound	5,225	960	4,265	266.6	106,375 (E)
AM	SR-905 / Siempre Viva Rd. Southbound	850	960	None	None	None
PM	SR-905 / Siempre Viva Rd. Southbound	1,655	960	695	43.4	17,375 (E)

* = Most restrictive meter rate used, per Caltrans.

** = Total hourly volume entering from both directions.

(E) = Exceeds ramp storage length.

TABLE 5-5

Buildout Community Plan Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand ** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Otay Mesa Rd. Northbound	865	960	None	None	None
PM	SR-125 / Otay Mesa Rd. Northbound	2,265	960	1,305	81.6	32,625 (E)

Most Restrictive Meter Rate						
Location		Demand* (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Lone Star Rd. Northbound	1,220	960	260	16.2	6,500 (E)
PM	SR-125 / Lone Star Rd. Northbound	2,000	960	1,040	65.0	26,000 (E)

* = Most restrictive meter rate used, per Caltrans.

** = Total hourly volume entering from both directions.

Excess Demand X 60MIN = Delay (Minutes)

Meter Rate

(E) = Exceeds ramp storage length.

Note: Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available, or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving traffic at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, use another freeway, or stay on surface streets.

Ramp meter queues are also tabulated, but there are no performance criteria regarding excessive queues in the Regional Traffic Impact Study Guidelines. However, the guidelines state the following:

“Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, [if available], use another freeway, or stay on surface streets.”

5.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the interchange ramps within the study area, and queue lengths without intersection mitigation are shown in **Table 5-6**, while **Table 5-7** shows queue lengths with mitigation.

There are no intersection queue length performance criteria within the Regional SANTEC / ITE Traffic Impact Study Guidelines. This queue analysis was provided to primarily evaluate whether interchanges could accommodate the projected traffic volumes and then compare the three scenarios evaluated in this report.

Of the 164 queues evaluated without mitigation, during AM and PM peak hours, 91 are expected to be of excess length for the vehicle storage available between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 192 queues were evaluated and 78 are expected to be of excess length, extending through the adjacent intersection.

Table 5-6

Adopted Community Plan
Buildout Queue Analysis Without Mitigation

Queue Locations North / South	AM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound			
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	370	4,100	-	-	450	None	3,650	-
Caliente Ave. / SR-905 WB Ramps	1,383	1,808	-	450	933	1,358	-	1,588	2,725	-	450	1,138	2,275	-	-
Caliente Ave. / SR-905 EB Ramps	-	173	590	450	-	None	140	-	2,375	-	300	-	2,075	-	-
Caliente Ave. / Airway Rd.	-	525	2,800	300	-	225	2,500	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	310	1,053	-	750	None	303	-	-
Heritage Rd. / SR-905 WB Ramps	-	160	218	750	-	None	None	-	1,858	-	750	-	1,108	-	-
Heritage Rd. / SR-905 EB Ramps	-	825	168	750	-	75	None	-	1,920	-	750	-	1,170	-	-
Heritage Rd. / Airway Rd.	-	3,825	2,078	750	-	3,075	1,328	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	430	-	688	900	None	-	-	None
Britannia Blvd. / SR-905 WB Ramps	540	1,163	-	900	None	263	-	1,010	198	-	450	560	None	-	-
Britannia Blvd. / SR-905 EB Ramps	-	1,068	300	450	-	618	None	-	1,595	-	900	-	695	-	-
Britannia Blvd. / Airway Rd.	-	3,670	2,428	900	-	2,770	1,528	-	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	2,423	3,375	-	450	1,973	2,225	-	-
La Media Rd. / SR-905 WB Ramps	105	2,900	-	450	None	2,450	-	248	5,100	4,275	900	None	4,200	3,375	-
La Media Rd. / SR-905 EB Ramps	63	6,975	-	900	None	6,075	-	510	2,208	-	900	None	1,308	-	-
La Media Rd. / Airway Rd.	-	5,500	4,375	900	-	4,600	3,475	-	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 5-6

Adopted Community Plan
Buildout Queue Analysis Without Mitigation

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	638	2,750	-	450	188	2,300	-
Caliente Ave. / SR-905 WB Ramps	685	1,505	-	450	235	1,055	-	4,325	1,970	-	450	3,875	1,520	-
Caliente Ave. / SR-905 EB Ramps	-	238	498	450	-	None	48	-	2,900	-	300	-	2,600	-
Caliente Ave. / Airway Rd.	-	1,120	1,415	300	-	820	1,115	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	358	490	-	750	None	None	-
Heritage Rd. / SR-905 WB Ramps	-	140	458	750	-	None	None	-	4,700	-	750	-	3,950	-
Heritage Rd. / SR-905 EB Ramps	-	143	163	750	-	None	None	-	3,750	-	750	-	3,000	-
Heritage Rd. / Airway Rd.	-	2,040	408	750	-	1,290	None	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	628	-	None	900	None	-	None
Britannia Blvd. / SR-905 WB Ramps	1,115	1,370	-	900	215	470	-	5,675	65	-	450	5,225	None	-
Britannia Blvd. / SR-905 EB Ramps	-	75	408	450	-	None	None	-	5,625	-	900	-	4,725	-
Britannia Blvd. / Airway Rd.	-	1,650	990	900	-	750	90	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,090	2,875	-	450	640	2,425	-
La Media Rd. / SR-905 WB Ramps	453	2,875	-	450	3	2,425	-	863	2,205	11,175	900	None	1,305	10,275
La Media Rd. / SR-905 EB Ramps	375	4,725	-	900	None	3,825	-	1,260	2,850	-	900	360	1,950	-
La Media Rd. / Airway Rd.	-	1,025	3,225	900	-	125	2,325	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 5-6

Adopted Community Plan

Buildout Queue Analysis Without Mitigation

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	228	103	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	308	763	600	-	None	163	-	305	5,175	1,000	-	None	4,175
Palm Ave. Dennerly Rd.	395	448	613	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	1,558	6,425	-	600	958	5,825	-
Siempre Viva Rd. / SR-905 SB Ramps	-	1,440	-	300	-	1,140	-	575	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	2,925	1,543	600	-	2,325	943	-	2,650	905	1,150	-	1,500	None
Siempre Viva Rd. / Paseo de las Americas	3,450	1,183	10,350	1,150	2,300	33	9,200	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	785	753	-	300	485	453	-
Lone Star Rd. / SR-125 SB Off Ramp	-	1,788	-	300	-	1,488	-	-	208	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	160	305	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	2,900	-	600	-	2,300	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	210	845	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	408	-	2,000	-	None	-	-	195	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	63	500	-	-	None	-	250	203	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	-	3,100	195	700	-	2,400	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 5-6

Adopted Community Plan

Buildout Queue Analysis Without Mitigation

Queue Locations East / West	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	503	278	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	940	518	600	-	340	None	-	783	3,930	1,000	None	None	2,930
Palm Ave. Dennergy Rd.	2,383	678	923	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	3,375	885	-	600	2,775	285	-
Siempre Viva Rd. / SR-905 SB Ramps	-	5,950	-	300	-	5,650	-	2,193	-	-	600	1,593	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	648	6,600	600	-	None	6,000	-	3,875	5,675	1,150	-	2,725	4,525
Siempre Viva Rd. / Paseo de las Americas	648	405	9,325	1,150	None	None	8,175	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	493	3,575	-	300	193	3,275	-
Lone Star Rd. / SR-125 SB Off Ramp	-	115	-	300	-	None	-	-	288	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	203	500	-	-	None	-	220	898	600	-	None	298
Lone Star Rd. / Piper Ranch Rd.	-	283	-	600	-	None	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	58	1,613	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	275	-	2,000	-	None	-	-	143	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	470	500	-	-	None	-	123	1,308	700	-	None	608
Otay Mesa Rd. / Harvest Rd.	-	798	88	700	-	98	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 5-7

Adopted Community Plan

Buildout Queue Analysis With Mitigation

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	370	400	7,680	450	None	None	7,380
Caliente Ave. / SR-905 WB Ramps	2,925	500	-	450	428	50	-	765	450	-	450	315	None	-
Caliente Ave. / SR-905 EB Ramps	-	155	243	450	-	None	140	-	1,748	268	300	-	1,448	None
Caliente Ave. / Airway Rd.	-	525	2,600	300	-	225	2,500	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	310	315	735	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	160	218	750	-	None	None	-	638	70	750	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	825	168	750	-	75	None	-	1,600	170	750	-	650	None
Heritage Rd. / Airway Rd.	195	2,300	2,078	750	None	1,550	1,328	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	430	-	688	900	None	-	None
Britannia Blvd. / SR-905 WB Ramps	513	485	-	900	None	None	-	1,010	133	-	450	560	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,068	300	450	-	618	None	-	1,093	180	900	-	193	None
Britannia Blvd. / Airway Rd.	1,528	2,290	3,650	900	628	1,390	2,750	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	2,423	1,355	585	450	1,973	905	135
La Media Rd. / SR-905 WB Ramps	105	2,900	-	450	None	2,450	-	248	2,448	-	900	None	1,548	-
La Media Rd. / SR-905 EB Ramps	63	4,000	-	900	None	3,100	-	510	2,208	-	900	None	1,308	-
La Media Rd. / Airway Rd.	2,098	2,278	4,550	900	1,198	1,378	3,650	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 5-7

Adopted Community Plan

Buildout Queue Analysis With Mitigation

Queue Locations North / South	PM Peak Hour														
Location	Queue Length Per Lane			Distance Between	Excess Queue (Feet)			Queue Length Per Lane			Distance Between	Excess Queue (Feet)			
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound			
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT	
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	700	483	3,225	450	250	33	2,775	
Caliente Ave. / SR-905 WB Ramps	588	600	-	450	12	150	-	1,455	1,785	-	450	1,005	1,335	-	
Caliente Ave. / SR-905 EB Ramps	-	328	305	450	-	None	None	-	1,870	248	300	-	1,570	None	
Caliente Ave. / Airway Rd.	-	1,268	2,800	300	-	968	2,500	-	-	-	-	-	-	-	
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	358	158	545	750	None	None	None	
Heritage Rd. / SR-905 WB Ramps	-	160	218	750	-	None	None	-	563	498	750	-	None	None	
Heritage Rd. / SR-905 EB Ramps	-	138	173	750	-	None	None	-	2,525	73	750	-	1,775	None	
Heritage Rd. / Airway Rd.	1,038	403	400	750	288	None	None	-	-	-	-	-	-	-	
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	628	-	None	900	None	-	None	
Britannia Blvd. / SR-905 WB Ramps	643	1,010	-	900	None	110	-	4,875	63	-	450	4,425	None	-	
Britannia Blvd. / SR-905 EB Ramps	-	75	408	450	-	None	None	-	2,900	560	900	-	2,000	None	
Britannia Blvd. / Airway Rd.	368	745	990	900	None	None	90	-	-	-	-	-	-	-	
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,090	1,195	415	450	640	745	None	
La Media Rd. / SR-905 WB Ramps	453	2,875	-	450	3	2,425	-	883	340	-	900	None	None	-	
La Media Rd. / SR-905 EB Ramps	375	2,625	-	900	None	1,725	-	1,260	2,850	-	900	360	1,950	-	
La Media Rd. / Airway Rd.	120	360	3,225	900	None	None	2,325	-	-	-	-	-	-	-	

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 5-7

Adopted Community Plan
Buildout Queue Analysis With Mitigation

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	253	103	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	288	138	-	600	None	None	-	-	38	53	1,000	-	None	None
Palm Ave. Dennergy Rd.	395	448	613	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	473	5,900	43	600	None	5,300	None
Siempre Viva Rd. / SR-905 SB Ramps	-	1,440	-	300	-	1,140	-	575	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	2,925	1,543	600	-	2,325	943	-	2,525	388	1,150	-	1,375	None
Siempre Viva Rd. / Paseo de las Americas	3,500	1,183	4,250	1,150	2,350	33	3,100	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	785	430	283	300	485	130	None
Lone Star Rd. / SR-125 SB Off Ramp	-	1,788	-	300	-	1,488	-	-	208	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	80	305	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	35	2,475	-	600	None	1,875	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	210	475	110	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	408	-	2,000	-	None	-	-	195	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	63	500	-	-	None	-	250	203	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	270	1,715	195	700	None	1,015	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 5-7

Adopted Community Plan
Buildout Queue Analysis With Mitigation

Queue Locations East / West	PM Peak Hour													
	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	553	250	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	208	268	-	600	None	None	-	-	80	670	1,000	-	None	None
Palm Ave. Denny Rd.	2,383	678	923	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	1,153	315	190	600	553	None	None
Siempre Viva Rd. / SR-905 SB Ramps	-	5,950	-	300	-	5,650	-	2,193	-	-	600	1,593	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	303	6,600	600	-	None	6,000	-	875	5,375	1,150	-	None	4,225
Siempre Viva Rd. / Paseo de las Americas	668	405	3,900	1,150	None	None	2,750	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	493	103	4,025	300	193	None	3,725
Lone Star Rd. / SR-125 SB Off Ramp	-	115	-	300	-	None	-	-	288	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	203	500	-	-	None	-	220	898	600	-	None	298
Lone Star Rd. / Piper Ranch Rd.	35	223	-	600	None	None	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	58	1,240	40	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	275	-	2,000	-	-	-	-	143	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	470	500	-	-	None	-	123	1,308	700	-	None	608
Otay Mesa Rd. / Harvest Rd.	55	530	88	700	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

6.0 SCENARIO 3B WITH LA MEDIA ROAD

6.1 3B Scenario Assumed Land Use and Transportation Network

The 3B Scenario land use would allow up to 18,774 dwelling units compared to 12,206 within the Adopted Community Plan. The traffic forecast for this alternative assumed 3,917,000 square feet of commercial uses and 54,461,000 square feet of industrial uses. The buildout of this plan would generate 1,045,025 average daily vehicle trips. The circulation element roadways for this alternative include those assumed in the Adopted Community Plan, No Project scenario. The major change is the extension of Beyer Boulevard to the east from the current existing roadway, and connecting with the southerly extension of Caliente Avenue. Siempre Viva Road is extended southwest of Caliente Avenue, but is disconnected from intersecting with East Beyer Boulevard in San Ysidro.

6.2 Segment Level of Service

Figure 6-1 shows the projected buildout average daily traffic trips generated on the street system due to the land uses assumed under the 3B With La Media Road land use and street network. **Table 6-1** indicates the roadway segment level of service for numerous roadway segments as a result of the projected average daily traffic and the capacity of the roadway. The highest forecasted volumes between circulation element roads were used for analysis. Also shown are recommended reclassifications of roadways. The initial “without mitigation” classification of roadways is based on the existing functional classifications. Or, if the street did not exist in the existing conditions assessment, or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing sized facility due to its capacity, then the Adopted Community Plan

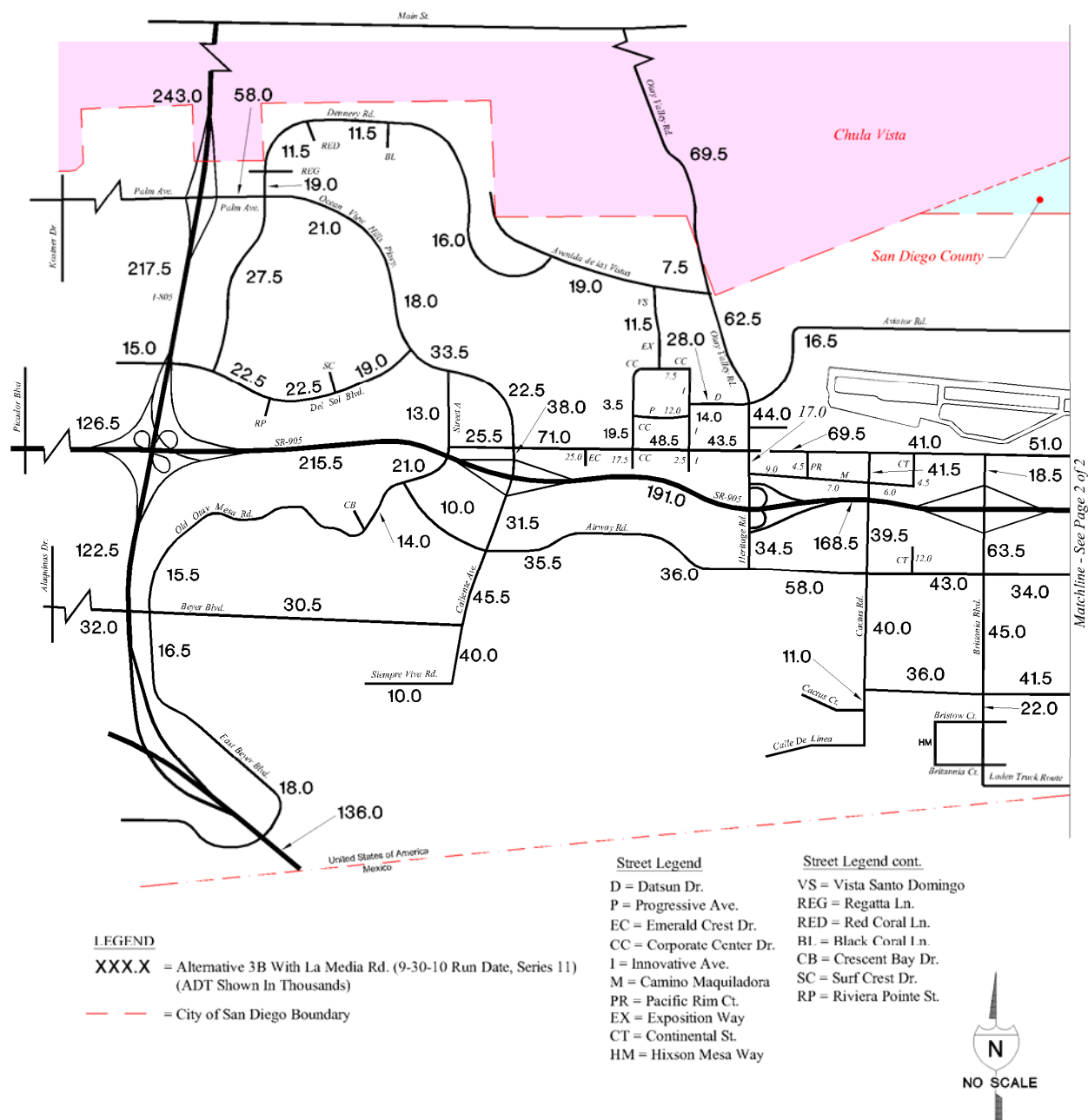


FIGURE 6-1

Scenario 3B With La Media Road Average Daily Traffic

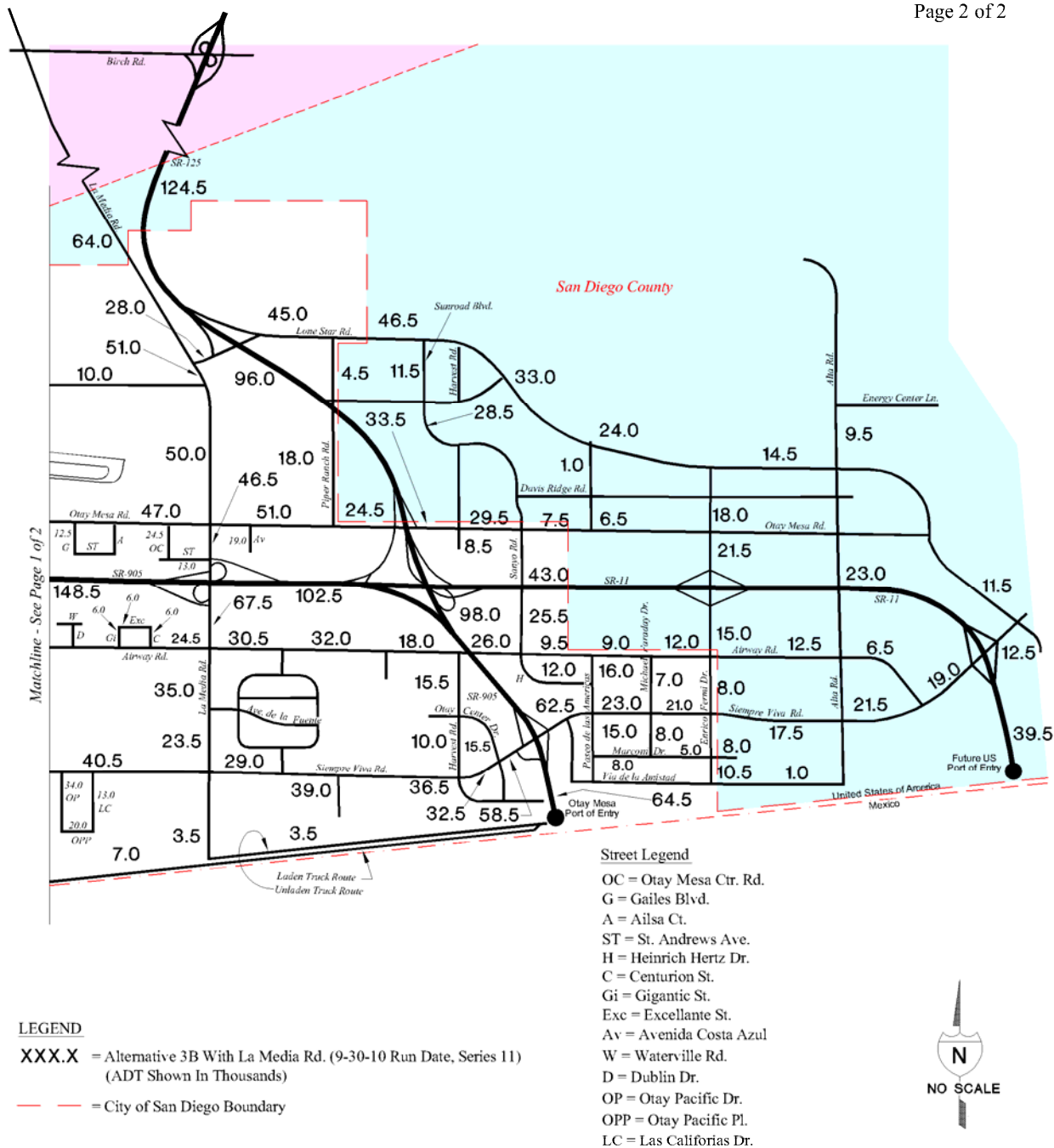


FIGURE 6-1

Scenario 3B With La Media Road Average Daily Traffic

TABLE 6-1

Buildout Scenario 3B With La Media Road

Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Otay Mesa Road	Street A to Caliente Ave.	1	6-PA	60,000	25,500	0.43	B	6-M	0.64	C	N
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	71,000	1.18	F	N	-	-	Y
	Corporate Center Dr. to Innovative Dr.	3	6-PA	60,000	48,500	0.81	C	N	-	-	N
	Innovative Dr. to Heritage Rd.	4	6-PA	60,000	43,500	0.73	C	N	-	-	N
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	69,500	1.16	F	N	-	-	Y
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	41,000	0.68	C	N	-	-	N
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	51,000	0.85	D	N	-	-	N
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	47,000	0.85	D	6-PA	0.78	C	N
	La Media Rd. to Piper Ranch Rd.	9	8-M	70,000	51,000	0.73	C	6-PA	0.85	D	N
	Piper Ranch Rd. to SR-125	10	4-P	45,000	24,500	0.54	C	6-PA	0.41	A	N
	SR-125 to Harvest Rd.	11	4-M	40,000	33,500	0.84	D	6-PA	0.56	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	29,500	0.74	C	6-PA	0.49	C	N
	Sanyo Ave. to Enrico Fermi Dr.	13	4-M	40,000	7,500	0.19	A	6-PA	0.13	A	N
Airway Road	Old Otay Mesa Rd. to Caliente Ave.	14	4-CL	30,000	10,000	0.25	A	N	-	-	N
	Caliente Ave. to Heritage Rd.	15	4-M	40,000	36,000	0.90	E	N	-	-	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	58,000	1.45	F	6-PA	0.97	E	Y
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	43,000	1.07	F	6-M	0.86	D	N
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	34,000	0.85	D	N	-	-	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	32,000	0.80	D	N	-	-	N
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	26,000	0.65	C	N	-	-	N
	Sanyo Ave. to Paseo de las Americas	21	4-M	40,000	9,500	0.24	A	N	-	-	N
	Paseo de las Americas to Michael Faraday Dr.	22	4-M	40,000	9,000	0.23	A	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	23	4-M	40,000	12,000	0.30	A	N	-	-	N
	Enrico Fermi Dr. to Siempre Viva Rd.*	24	4-M	40,000	12,500	0.31	A	N	-	-	N
Siempre Viva Road	Caliente Ave. to West Terminus	25	4-M	40,000	10,000	0.25	A	2-CL	0.67	C	N
	Cactus Rd. to Britannia Blvd.	27	6-PA	60,000	36,000	0.60	C	N	-	-	N
	Britannia Blvd. to La Media Rd.	28	6-PA	60,000	41,500	0.69	C	N	-	-	N
	La Media Rd. to Harvest Rd.	29	6-PA	60,000	39,000	0.65	C	N	-	-	N
	Harvest Rd. to Otay Center Dr.	30	6-PA	60,000	32,500	0.54	B	N	-	-	N
	Otay Center Dr. to SR-905	31	6-PA	60,000	58,500	0.98	E	N	-	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	62,500	1.04	F	N	-	-	Y
	Paseo de las Americas to Michael Faraday Dr.	33	4-M	40,000	23,000	0.58	C	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	34	4-M	40,000	21,000	0.53	B	N	-	-	N
	Enrico Fermi Dr. to SR-11*	35	4-M	40,000	17,500	0.44	B	N	-	-	N

*Segment in County of San Diego

Note: There is no segment #26 with this alternative.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 6-1 (Continued)
Buildout Scenario 3B With La Media Road
Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Palm Avenue	I-805 to Dennerly Rd.	37	7-PA	65,000	58,000	0.89	D	N	-	-	N
Ocean View Hills Parkway	Dennerly Rd. to Del Sol Blvd.	38	4-M	40,000	21,000	0.53	B	N	-	-	N
	Del Sol Blvd. to Street "A"	39	6-M	50,000	33,500	0.67	C	N	-	-	N
	Street "A" to Otay Mesa Rd.	40	6-M	50,000	22,500	0.45	B	N	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	41	6-M	50,000	38,000	0.76	C	6-PA	0.50	B	N
	SR-905 to Airway Rd.	42	6-M	50,000	31,500	0.63	C	6-PA	0.53	B	N
	Airway Rd. to Beyer Blvd.	43	4-M	40,000	45,500	1.14	F	6-M	0.91	E	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	4-M	40,000	41,000	1.03	F	N	-	-	Y
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	44	4-M	40,000	32,000	0.80	D	N	-	-	N
	Old Otay Mesa Rd. to Caliente Ave (3)	45	4-M	40,000	30,500	0.76	C	N	-	-	N
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	69,500	1.16	F	N	-	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	62,500	1.25	F	6-PA	1.04	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	44,000	0.88	D	6-PA	0.73	C	N
	Otay Mesa Rd. to SR-905	49	6-M	50,000	17,000	0.34	B	6-PA	0.28	A	N
	SR-905 to Airway Rd.	50	6-M	50,000	34,500	0.69	C	6-PA	0.58	B	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	41,500	1.38	F	4-M	1.04	F	Y
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	40,000	1.33	F	4-M	1.00	E	Y
	Siempre Viva Rd. to South End	54	2-CL	15,000	11,000	0.73	D	N	-	-	N
Britannia Boulevard	Otay Mesa Rd. to SR-905	55	4-M	40,000	18,500	0.46	B	6-PA	0.31	A	N
	SR-905 to Airway Rd.	56	4-M	40,000	63,500	1.59	F	6-PA	1.06	F	Y
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	45,000	1.10	F	6-M	0.90	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	22,000	2.75	F	4-CL	0.73	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	64,000	1.07	F	N	-	-	Y
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	51,000	0.85	D	N	-	-	N
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	50,000	0.83	C	N	-	-	N
	Otay Mesa Rd. to SR-905	62	6-PA	60,000	46,500	0.78	C	N	-	-	N
	SR-905 to Airway Rd.	63	6-PA	60,000	67,500	1.13	F	N	-	-	Y
	Airway Rd. to Siempre Viva Rd.	64	4-M	40,000	35,000	0.88	D	5-M	0.78	D	N
Harvest Road	South of Otay Mesa Rd.	65	4-M	40,000	8,500	0.21	A	2-CL	0.57	A	N
	Airway Rd. to Otay Center Dr.	66	4-M	40,000	15,500	0.39	B	4-CL	0.52	C	N
	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	10,000	0.25	A	4-CL	0.33	A	N

*Segment in County of San Diego

Note: There is no segment # 51 with this alternative.

**Segment in Chula Vista

Segment #36 was deleted.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

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F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 6-1 (Continued)
Buildout Scenario 3B With La Media Road
Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Enrico Ferni Drive	SR-11 to Airway Rd.*	68	4-M	40,000	15,000	0.38	A	N	-	-	N
	Airway Rd. to Siempre Viva Rd.	69	4-M	40,000	8,000	0.20	A	4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	70	4-M	40,000	10,500	0.26	A	4-CL	0.35	B	N
Lone Star Road	La Media Rd. to SR-125	71	4-M	40,000	28,000	0.70	C	N	-	-	N
	SR-125 to Piper Ranch Rd.	72	4-M	40,000	45,000	1.13	F	6-PA	0.75	C	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	46,500	1.16	F	6-PA	0.78	C	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	16,500	2.06	F	4-CL	0.55	C	N
Dennery Road	Palm Ave. to Del Sol Blvd.	75	4-M	40,000	27,500	0.69	C	N	-	-	N
	Palm Ave. to Regatta Ln.	76	4-M	40,000	19,000	0.48	B	N	-	-	N
	Regatta Ln. to Red Coral Ln.	77	4-CL	30,000	11,500	0.38	B	N	-	-	N
	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	11,500	0.78	D	N	-	-	N
	Black Coral Ln. to East End	79	2-CN	10,000	16,000	1.60	F	N	-	-	Y
Avendia De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	80	2-CN	10,000	7,500	0.75	C	N	-	-	N
	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	19,000	1.90	F	N	-	-	Y
Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	82	4-CL	30,000	19,000	0.63	C	N	-	-	N
	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	22,500	2.25	F	N	-	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	22,500	1.47	F	N	-	-	Y
	Dennery Rd. to I-805	85	4-CL	30,000	15,000	0.50	C	N	-	-	N
Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	86	4-M	40,000	13,000	0.33	A	N	-	-	N
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	87	4-CL	30,000	21,000	0.70	D	N	-	-	N
	Airway Rd. to Crescent Bay Dr.	88	4-CL	30,000	14,000	0.47	B	N	-	-	N
	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	15,500	1.94	F	N	-	-	Y
Emerald Crest Drive	Otay Mesa Rd. to South End (3)	90	4-CL	30,000	25,000	0.83	D	N	-	-	N
Corporate Center Drive	South End to Otay Mesa Rd. (3)	91	4-CL	30,000	17,500	0.58	C	N	-	-	N
	Otay Mesa Rd. to Progressive Ave.	92	4-CL	30,000	19,500	0.65	C	N	-	-	N
	Progressive Ave. to Innovative Dr.	93	2-C	8,000	8,500	1.06	F	2-CL	0.57	C	N
Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	94	4-CL	30,000	14,000	0.47	B	N	-	-	N
Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	96	4-CL	30,000	18,000	0.60	C	N	-	-	N

*Segment in County of San Diego

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

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New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 6-1 (Continued)

Buildout Scenario 3B With La Media Road

Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS		New Class	New V/C	New LOS	S?
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	25,500	1.70	F		4-CL	0.85	E	Y
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	11,000	0.73	D		N	-	-	N
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	16,000	2.00	F		4-CL	0.53	C	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	15,000	1.88	F		4-CL	0.50	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	8,000	1.00	E		2-CL	0.53	C	N
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	15,500	1.03	F		4-CL	0.52	C	N
Michael Faraday Drive	Airway Rd. to Siempre Viva Rd. (4)	103	2-CL	15,000	7,000	0.47	B		N	-	-	N
	Siempre Viva Rd. to Marconi Dr. (4)	104	2-CL	15,000	8,000	0.53	C		N	-	-	N
St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	105	2-C	8,000	13,000	1.30	F		4-CL	0.43	B	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	12,500	1.56	F		4-C	0.83	D	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	9,000	1.13	F		N	-	-	Y
	Pacific Rim Ct. to Cactus Rd.	109	2-C	8,000	7,000	0.88	E		N	-	-	Y
	Cactus Rd. to Continental St.	110	2-C	8,000	6,000	0.75	D		N	-	-	N
Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	111	2-C	8,000	4,500	0.56	C		N	-	-	N
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	12,000	1.50	F		N	-	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	24,500	3.01	F		4-CL	0.82	D	N
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	28,000	3.50	F		4-CL	0.93	E	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.(3)	115	2-CL	15,000	19,000	1.27	F		4-CL	0.63	B	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	6,000	0.40	B		2-C	0.75	D	N
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	6,000	0.40	B		2-C	0.75	D	N
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	6,000	0.40	B		2-C	0.75	D	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (4)	119	2-CN	10,000	11,500	1.15	F		N	-	-	Y
Continental Street	South of Otay Mesa Rd.	120	2-C	8,000	4,500	0.56	C		N	-	-	N
	North of Airway Rd.	121	2-CL	15,000	10,000	0.67	C		N	-	-	N

*Segment in County of San Diego

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

 = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

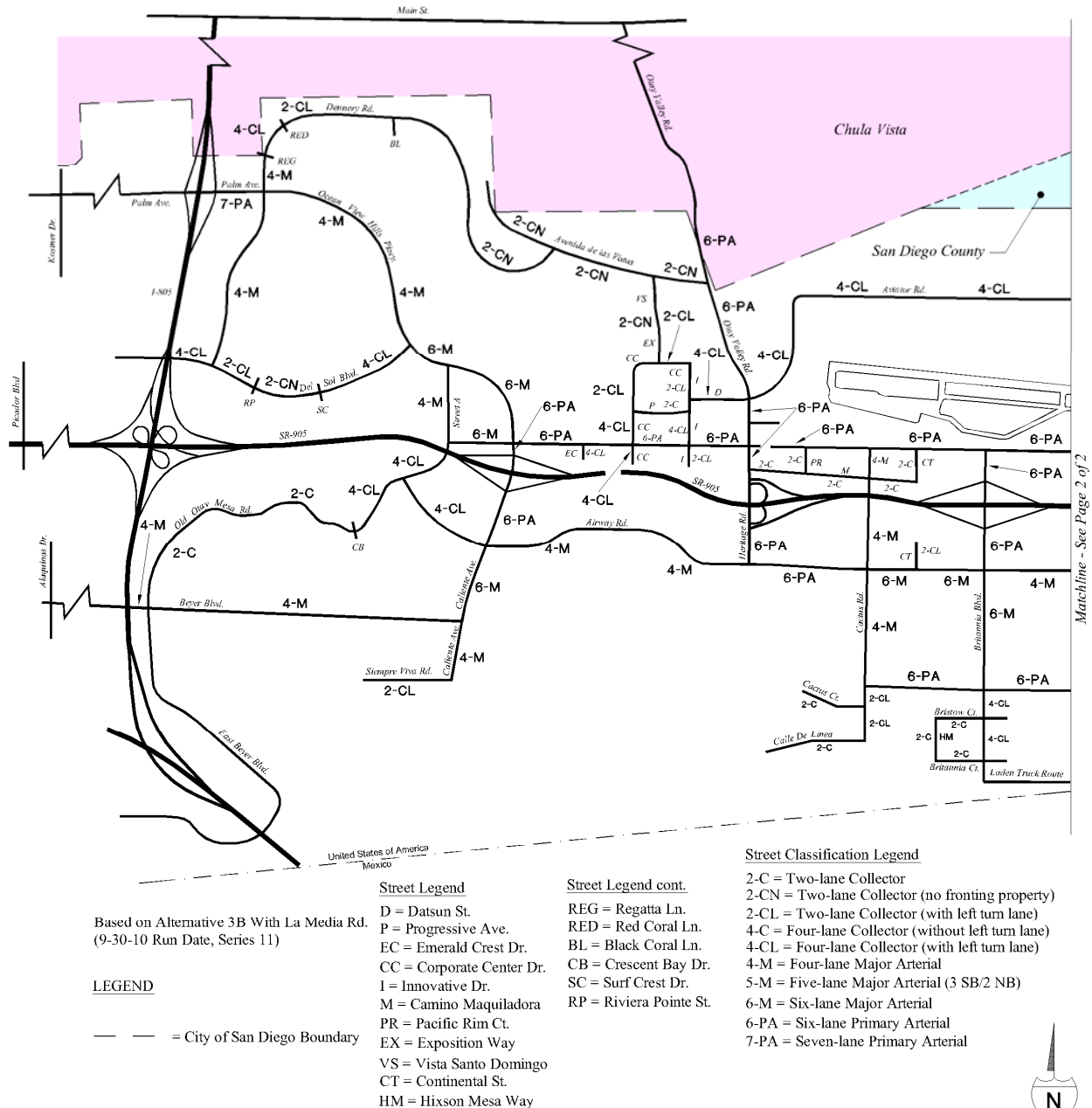
2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

Classification was used. Failing roadway segments at level of service “E” or “F” with significant traffic impacts are summarized below. All other roadway segments are projected to operate at a level of service “D” or better, without significant traffic impacts.

Figure 6-2 shows recommended roadway classifications for the 3B With La Media Road scenario.



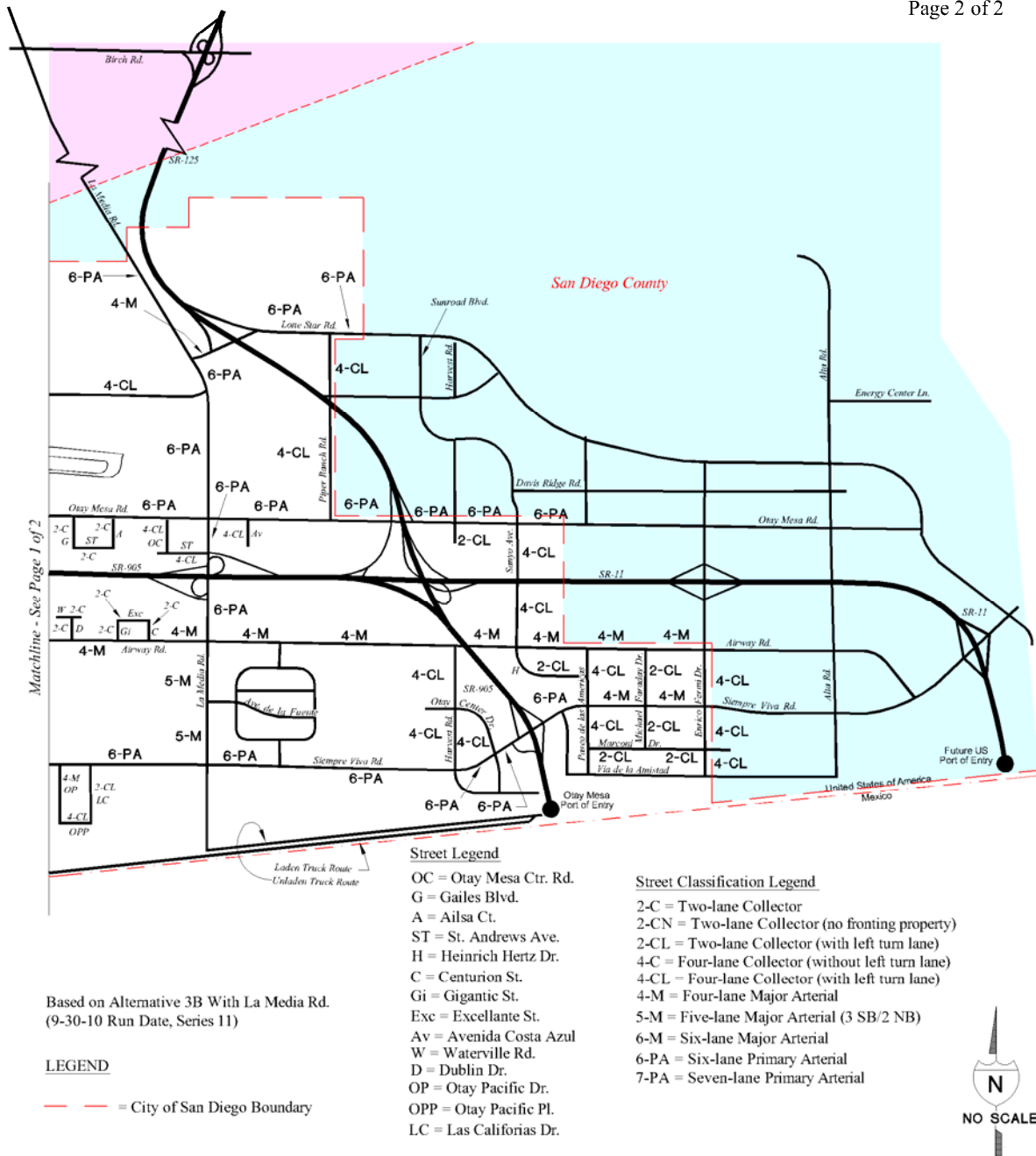


FIGURE 6-2

Scenario 3B With La Media Road Land Use Scenario With Proposed Roadway Classification Recommendations

Otay Mesa Road

- Caliente Avenue to Corporate Center Drive: level of service “F”.
- Heritage Road to Cactus Road: level of service “F”.

A reclassification of these segments from a six lane Primary Arterial to eight lanes is not recommended. Widening to eight lanes would be costly, and intersections would be wider and less pedestrian friendly. Right turn only lanes at intersections are recommended to be lengthened to serve as auxiliary lanes between intersections. Without reclassification the significant impact would remain unmitigated.

The seven lane Major and eight lane Major Arterial classification for segments between Ailsa Court and Piper Ranch Road are recommended for a reclassification to a six lane Primary Arterial, restricting parking and access. The impact would be less than significant. These reclassifications are recommended for consistency in lane configurations along Otay Mesa Road.

- Piper Ranch Road to Enrico Fermi Drive:

A reclassification to a six lane Primary Arterial is recommended. There are few driveways and few developed parcels along these segments so that restricting parking and access would have a minimal impact. The levels of service are acceptable through these segments, but the County of San Diego classification is six lanes east of Enrico Fermi Drive, and it is advisable to maintain a continuous classification through these segments to maintain consistency in lane configurations.

Airway Road

- Caliente Avenue to Heritage Road: level of service “E”.

This segment is slightly (2.9%) over the level of service “D” volumes for a four lane Major Arterial. This segment includes a bridge crossing an open space canyon so that a six lane bridge would be costly and affect the environment more than four lanes. A six lane reclassification is not recommended. However the significant segment impact would be unmitigated.

- Heritage Road to Cactus Road: level of service “F”.
- Cactus Road to Britannia Boulevard: level of service “F”.

A reclassification to a six lane Primary Arterial is recommended beginning west of the Heritage Road intersection, so six through lanes can be provided through the intersection in the east and westbound directions, and extending to Cactus Road. The Heritage Road to Cactus Road segment significant impact would be unmitigated. However, added right turn lanes at intersections would enhance the segment capacity. The Cactus Road to Britannia Boulevard segment would be mitigated with a reclassification to a six lane Major Arterial.

Siempre Viva Road

- Otay Center Drive to SR-905: level of service “E”.
- SR-905 to Paseo de las Americas: level of service “F”

A reclassification from six to eight lanes is not recommended since a costly widening of the SR-905 / Siempre Viva Road interchange would be needed. The significant impact to these segments would be unmitigated.

Caliente Avenue

- Otay Mesa Road to Airway Road:

Although not at level of service “E” or “F”, these segments are recommended to be reclassified from a six lane Major Arterial to a six lane Primary Arterial, restricting access and parking adjacent to the closely spaced intersections, including SR-905 on and off ramp intersections with Caliente Avenue.

- Airway Road to Beyer Boulevard: level of service “F”.

A reclassification from a four lane to a six lane Major Arterial is recommended. This segment extends through a future residential area so that a Primary Arterial restricting access is not recommended. The significant segment impact would be only partially mitigated.

- Beyer Boulevard to Siempre Viva Road: level of service “F”.

No reclassification is recommended since this segment extends into a future residential area that will need to be designed with Collector loop streets for acceptable access, and local traffic will have additional access to Beyer Boulevard.

Heritage Road / Otay Valley Road

- Otay Valley Road between Main Street in Chula Vista and Avenida de las Vistas: level of service “F”.

A reclassification to more than the current six lane Primary Arterial would be a decision to be made by the City of Chula Vista. A wider roadway and bridge over the Otay River Valley would be costly and

increase environmental impacts to the Otay River Valley and is not recommended. The significant impact to this segment would be unmitigated.

- Avenida de las Vistas to Datsun Street: level of service “F”.

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. A wider classification would be costly to construct and is not recommended. There are few developed driveways along this segment so that restricting parking and access would have minimal impacts to adjacent parcels. The significant segment impact would be only partially mitigated.

- Datsun Street to Airway Road: acceptable levels of service.

A reclassification to a six lane Primary Arterial is recommended, restricting access and parking through these closely spaced intersections, including the SR-905 on and off ramp intersections with Heritage Road.

Cactus Road

- Otay Mesa Road to Airway Road: level of service “F”.
- Airway Road to Siempre Viva Road: level of service “F”.

A reclassification to a four lane Major Arterial is recommended. A higher six lane classification is not recommended. This roadway will extend through the mixed-use village area and excessive through traffic should be discouraged. The significant segment impacts would only be partially mitigated.

Britannia Boulevard

- SR-905 to Airway Road: level of service “F”.
- Airway Road to Siempre viva Road: level of service “F”.

Britannia Boulevard has been constructed as six lanes between Otay Mesa Road and the SR-905 eastbound ramps, and five lanes between the eastbound ramps and Airway Road. The Cross-Border Facility project includes reclassifying and construction of this segment to six lanes as project mitigation. The SR-905 on and off ramp intersections are closely spaced so that parking and access should be restricted along these segments.

In addition, Britannia Boulevard will also be the designated truck route for southbound laden trucks between SR-905 and the planned truck route parallel to the border.

Therefore, a reclassification to a six lane Primary Arterial is recommended for the segments between Otay Mesa Road and Airway Road. Significant segment impacts would not be fully mitigated. The segment between Airway Road and Siempre Viva Road is recommended as a six lane Major Arterial. The significant segment impact would be fully mitigated.

- Siempre Viva Road to South End: level of service “F”.

A reclassification from two to four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

La Media Road

- Birch Road to Lone Star Road: level of service “F”.

The City of Chula Vista is planning to remove the segment of La Media Road crossing the Otay River Valley within Chula Vista from the City of Chula Vista General Plan Circulation Element. However, the traffic volumes for this segment for this scenario are based on including this segment in the traffic model. Due to the need to construct a lengthy bridge through the Otay River Valley, the cost of this segment may be prohibitive so that a reclassification from six lanes to a wider roadway than six lanes is not recommended. Without reclassification the significant segment impact would be unmitigated.

-SR-905 to Airway Road: level of service “F”.

The addition of lanes to this currently classified six lane Primary Arterial would require a costly modification to the SR-905 interchange and is not recommended. The significant segment impact would be unmitigated.

Lone Star Road

- SR-125 to Piper Ranch Road: level of service “F”.
- Piper Ranch Road to City / County Boundary: level of service “F”.

A reclassification to a six lane Primary Arterial is recommended from west of the SR-125 southbound off-ramp to the City / County Boundary. The significant segment impact would be mitigated.

Aviator Road

- Heritage Road to La Media Road: level of service “F”.

This segment is recommended to be added to the circulation element as a four lane Collector (with left turn lane). Future volumes would be accommodated without a significant segment impact.

Dennery Road

-Black Coral Lane to East End: level of service “F”.

A reclassification is not recommended. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Avenida de las Vistas

-Otay Valley Road to Vista Santo Domingo: level of service “E”.

-Vista Santo Domingo to Dennery Road: level of service “F”.

A reclassification is not recommended. This street is fully constructed and has adjacent single family residences. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impacts would be unmitigated.

Del Sol Boulevard

- Surf Crest Drive to Riviera Pointe: level of service “F”.

This segment will pass through environmentally sensitive lands and is on a slope. Retaining the two lane Collector (no fronting property) classification would minimize impacts to the MSCP land and discourage speeding and though traffic not destined to the adjacent residential development.

-Riviera Pointe to Dennery Road: level of service “F”.

This segment is fully constructed and surrounded by environmentally sensitive land and single family development. A reclassification to four lanes is not recommended. The significant segment impact would be unmitigated.

The two lane segment crossing the MSCP canyon is expected to minimally impact the open space, so that four lanes are not recommended. The significant segment impact would not be mitigated.

Old Otay Mesa Road

- Crescent Bay Drive to Beyer Boulevard: level of service “F”.

This segment is situated on a steep, rocky hillside that would be costly to widen. Therefore, no reclassification is recommended. The significant segment impact would remain unmitigated.

Corporate Center Drive

-Progressive Avenue to Innovative Drive: level of service “F”.

This segment is fully constructed with adjacent developments, as a two lane industrial Collector (without left turn lane). A reclassification as a two lane Collector (with left turn lane) is recommended. The significant impact would be mitigated with restriping for a central left turn lane.

Sanyo Avenue

-Otay Mesa Road to Airway Road: level of service “F”.

This segment is constructed as a four lane Collector (without left turn lane) and is to be added to the circulation plan. Widening to a four lane Major Arterial width would adversely affect adjacent development, but minor widening to accommodate a central left turn lane and a classification as a four lane Collector (with left turn lane) is recommended. The significant segment impact would remain unmitigated.

Paseo de las Americas

- Airway Road to Siempre Viva Road: level of service “F”.
- Siempre Viva Road to Marconi Drive: level of service “F”.

These segments are currently classified as a two lane Collector (with left turn lane) but are constructed fully with four lanes. A reclassification to a four lane Collector roadway is recommended. The reclassification would mitigate the significant segment impacts.

Marconi Drive

- Paseo de las Americas to Enrico Fermi Drive: level of service “E”.

This segment is fully constructed as a two lane industrial Collector, and is wide enough to be striped with two lanes and a continuous central left turn lane. The significant segment impact would be mitigated with the reclassification to a two lane Collector (with left turn lane).

Otay Center Drive

- Harvest Road to Siempre Viva Road: level of service “F”.

This segment is constructed as a four lane Collector (without left turn lane). A reclassification to four lane Collector (with left turn lane is recommended). The significant segment impact would be mitigated.

St. Andrews Avenue

-Otay Mesa Center Road to La Media Road: level of service “F”.

Currently constructed with four lanes, and classified as a two lane Collector, reclassification to a four-lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

Gailes Boulevard

-Otay Mesa Road to St. Andrews Avenue: level of service “F”.

This street is constructed with four lanes and a raised median. A reclassification from a two lane Collector to four lane Collector (without left turn lanes) is recommended. The significant segment impact would be mitigated.

Camino Maquiladora

-Heritage Road to Pacific Rim Court: level of service “F”

-Pacific Rim Court to Cactus Road: level of service “E”.

These segments serve adjacent industrial uses, but have diverted traffic from Otay Mesa Road. These segments are not mean to be through traffic by-pass routes and are not recommended for reclassification. The significant segment impacts would be unmitigated.

Progressive Avenue

-Corporate Center Drive to Innovative Drive: level of service “F”.

This segment is constructed as a two lane industrial Collector and serves adjacent industrial uses, but has diverted traffic from Heritage Road. This segment is not meant as a through traffic by-pass route and is not recommended for reclassification. The significant impact would be unmitigated.

Otay Mesa Center Road

-Otay Mesa Road to St. Andrews Avenue: levels of service “F”.

This segment is classified as a two lane Collector, but is constructed with four lanes. A reclassification to a four lane Collector (with left turn lane) mitigates the significant segment impact.

Datsun Street

- Innovative Drive to Heritage Road: level of service “F”.

This segment is planned to serve the adjacent industrial uses, but has high volumes due to traffic diverted from Heritage Road. This segment is not meant to be a through traffic bypass route. A classification as a four lane Collector (with left turn lane) is recommended, rather than a four lane Major Arterial. The significant segment impact would be unmitigated.

Avenida Costa Azul

-Otay Mesa Road to St. Andrews Avenue: level of service “F”.

Add to circulation plan as a four lane Collector (with left turn lane). The significant segment impact would be mitigated by this classification.

Exposition Way / Vista Santo Domingo

-Avenida de las Vistas to Corporate Center Drive: level of service “F”.

This segment has high volumes due to diverted traffic from Otay Valley Road.

Vista Santo Domingo is constructed as a two lane Collector (no fronting property) within a residential area and is not meant to be a by-pass route for through traffic so that retaining this classification would discourage speeding and through traffic not destined for the adjacent residential neighborhoods.. A reclassification is not recommended.

6.3 Freeway Levels of Service

Table 6-2 lists freeway segments evaluated for the 3B With La Media Road scenario, without possible future HOV lanes.

Segments of Interstate 805 and State Route 905 are projected to be significantly impacted by Otay Mesa Community Plan and regional cumulative traffic.

Impacts to Interstate 805 between State Route 905 and Main Street would remain significant and unmitigated without the assumption of High Occupancy Vehicle (HOV) lanes installed, and a northbound auxiliary lane installed with I-805 / SR-905 interchange improvements.

However, the Adopted SANDAG 2050 Regional Transportation Plan includes two managed lanes in each direction on I-805 north of SR-905. With the addition of these managed lanes, peak hour levels of service would be at “D” on I-805 segments between SR-905 and Main Street.

State Route 905 is assumed with six lanes. Impacts would be significant and unmitigated between Picador Boulevard and Britannia Boulevard. State Route 905 has been designed so that median HOV lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service, except between I-805 and Britannia Boulevard. **Table 6-2-A** shows freeway levels of service after HOV lanes are added to segments at level of service “F”.

6.4 Intersection Levels of Service

Table 6-3 shows the 3B With La Media Road scenario intersection levels of service with and without recommended mitigation.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. Lane configurations with mitigation identified are included in **Appendix C**. Also included are peak hour volumes at each intersection and intersection levels of service worksheets.

TABLE 6-2

Buildout Scenario 3B With La Media Road Freeway Segment Levels of Service

	Segment	Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split(5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	126,500	0.08	0.6	0.90	6,747	0.96	E
	I-805 to Caliente Ave. (4)	3 + CL	8,550	215,500	0.08	0.6	0.90	11,493	1.63	F3
	Caliente Ave. to Heritage Rd.	3	7,050	191,000	0.08	0.6	0.90	10,187	1.44	F2
	Heritage Rd. to Britannia Blvd.	3	7,050	168,500	0.08	0.6	0.90	8,987	1.27	F1
	Britannia Blvd. to La Media Rd.	3	7,050	148,500	0.08	0.6	0.90	7,920	1.12	F0
	La Media Rd. to SR-125	3	7,050	102,500	0.08	0.6	0.90	5,467	0.78	C
	SR-125 to Siempre Viva Rd.	3	7,050	98,000	0.08	0.6	0.90	5,227	0.74	C
	Siempre Viva Rd. to Border	3	7,050	64,500	0.08	0.6	0.90	3,440	0.49	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	243,000	0.08	0.6	0.90	12,960	1.16	F0
	Palm Ave. to SR-905	4+AUX	11,200	217,500	0.08	0.6	0.90	11,600	1.04	F0
	SR-905 to I-5	4	9,400	122,500	0.08	0.6	0.90	6,533	0.70	C
	I-5 to Border	6	14,100	136,000	0.08	0.6	0.90	7,253	0.51	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	124,500	0.08	0.6	0.90	6,640	0.71	C
	Lone Star Rd. to SR-905	4 (Toll)	9,400	96,000	0.08	0.6	0.90	5,120	0.54	B
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	43,000	0.08	0.6	0.90	2,293	0.49	B
	Enrico Fermi Dr. to Siempre Viva Rd.	2	4,700	23,000	0.08	0.6	0.90	1,227	0.26	A
	Siempre Viva Rd. to Border	2	4,700	39,500	0.08	0.6	0.90	2,107	0.48	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

F

= Shading indicates a significant impact.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (9-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source: Caltrans Traffic Volumes Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) = Highway Capacity Manual (2000) EQN. (3-2); Assume 10% trucks plus RV's.

TABLE 6-2-A

**Scenario 3B With La Media Road Freeway Segment Levels of Service
(With HOV Lanes Added To LOS F Segments)**

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Hour % (5)	Direction Split (5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	126,500	0.08	0.6	0.90	6,747	0.83	D
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	215,500	0.08	0.6	0.90	11,493	1.13	F1
	Caliente Ave. to Heritage Rd.	+H	3	8,650	191,000	0.08	0.6	0.90	10,187	1.18	F2
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	168,500	0.08	0.6	0.90	8,987	1.04	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	148,500	0.08	0.6	0.90	7,920	.92	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	243,000	0.08	0.6	0.90	12,960	0.90	D
	Palm Ave. to SR-905	+2H	4+AUX	14,400	217,500	0.08	0.6	0.90	11,600	0.81	D

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL


ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

 = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (09-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source: Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

TABLE 6-3

Buildout Scenario 3B With La Media Road Intersection Levels of Service

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	47.2	D	48.6	D	24.6	C	34.5	C
2	Palm Ave. / I-805 NB Ramps	107.7	F	113.9	F	18.7	B	29.3	C
3	Palm Ave. / Dennery Rd.	34.2	C	67.8	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	279.2	F	139.5	F	220.6	F	82.1	F
5	Caliente Ave. / SR-905 WB Ramps	74.6	E	41.8	(1) D	35.6	(1) D	32.5	(1) C
6	Caliente Ave. / SR-905 EB Ramps	140.2	F	146.5	F	48.6	D	66.0	E
7	Caliente Ave. / Airway Rd.	240.9	F	204.3	F	184.8	F	181.9	F
8	Caliente Ave. / Beyer Blvd.	238.6	F	411.5	F	173.5	F	111.6	F
9	Otay Mesa Rd. / Heritage Rd.	289.6	F	283.7	F	236.0	F	192.8	F
10	Heritage Rd. / SR-905 WB Ramps	65.1	E	100.4	F	18.7	(1) B	27.8	(1) C
11	Heritage Rd. / SR-905 EB Ramps	127.9	F	86.8	F	34.2	(1) C	23.4	(1) C
12	Heritage Rd. / Airway Rd.	146.3	F	378.4	F	62.6	E	79.5	E
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	391.1	F	265.8	F	118.3	F	185.5	F
15	Airway Rd. / Cactus Rd.	344.9	F	430.8	F	167.4	F	284.9	F
16	Siempre Viva Rd. / Cactus Rd.	43.4	D	119.2	F	42.2	D	108.7	F
17	Otay Mesa Rd. / Britannia Blvd.	113.5	F	125.7	F	68.2	E	51.5	D
18	Britannia Blvd. / SR-905 WB Ramps	239.4	F	452.4	F	61.0	E	417.5	F
19	Britannia Blvd. / SR-905 EB Ramps	357.3	F	237.6	F	306.7	F	69.9	E
20	Britannia Blvd. / Airway Rd.	622.3	F	611.5	F	187.7	F	236.4	F
21	Siempre Viva Rd. / Britannia Blvd.	378.7	F	345.5	F	164.3	F	168.3	F
22	Otay Mesa Rd. / La Media Rd.	391.8	F	448.0	F	128.5	F	107.5	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

TABLE 6-3 (Continued)

Buildout Scenario 3B With La Media Road Intersection Levels of Service

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
23	La Media Rd. / SR-905 WB Ramps	242.0	F	134.1	F	96.6	F	94.4	F
24	La Media Rd. / SR-905 EB Ramps	255.5	F	81.6	F	167.4	F	47.5	(1) D
25	La Media Rd. / Airway Rd.	508.2	F	573.5	F	191.4	F	283.3	F
26	La Media Rd. / Siempre Viva Rd.	252.3	F	115.3	F	93.6	F	44.0	D
27	La Media Rd. / Lone Star Rd.	90.1	F	115.9	F	43.0	D	80.6	F
28	Lone Star Rd. / SR-125 SB Off Ramp	23.0	(1) C	13.6	(1) B	-	-	-	-
29	Lone Star Rd. / SR-125 NB On Ramp	3.4	(1) A	7.8	(1) A	-	-	-	-
30	Lone Star Rd. / Piper Ranch Rd.	10.8	B	9.2	A	-	-	-	-
31	Otay Mesa Rd. / Piper Ranch Rd.	140.7	F	218.6	F	57.6	E	84.8	F
32	Otay Mesa Rd. / SR-125 SB Off Ramp	48.9	D	7.1	A	19.0	B	6.2	A
33	Otay Mesa Rd. / SR-125 NB On Ramp	3.2	A	8.0	A	-	-	-	-
34	Otay Mesa Rd. / Harvest Rd.	54.6	D	132.3	F	10.7	B	32.4	C
35	Siempre Viva Rd. / Otay Center Dr.	262.9	F	322.7	F	74.1	E	91.0	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	28.2	(1) C	137.1	F	-	-	-	-
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 2,531	F	(2) 204.1	F	366.4	F	16.2	B
37	Siempre Viva Rd. / SR-905 NB Ramps	47.4	(1) D	250.4	F	39.4	(1) D	238.0	F
38	Siempre Viva Rd. / Paseo de las Americas	190.2	F	367.1	F	78.5	E	158.1	F
39	Dennerly Rd. / Del Sol Blvd.	53.6	(1) D	53.2	D	-	-	-	-
40	Ocean View Hills Pkwy. / Del Sol Blvd.	71.4	E	67.1	E	50.4	D	54.3	D
41	Ocean View Hills Pkwy. / Street A	48.2	D	63.2	E	37.7	D	34.1	C
42	Old Otay Mesa Rd. / Beyer Blvd.	392.8	F	399.1	F	197.4	F	185.6	F
43	Otay Mesa Rd. / Corporate Center Dr.	119.3	F	184.6	F	78.6	E	140.6	F
44	Otay Mesa Rd. / Innovative Dr.	114.5	F	110.5	F	113.8	F	91.4	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

(2) = Unsignalized: SB to WB right turn at LOS F (AM and PM Peak Hours)

F = Shading indicates a significant impact.

TABLE 6-3 (Continued)

Buildout Scenario 3B With La Media Road Intersection Levels of Service

Intersection	Without Mitigation				With Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	CD	LOS	CD	LOS	CD	LOS	CD	LOS
45 Harvest Rd. / Airway Rd.	117.5	F	13.8	B	43.9	D	13.5	B
46 Harvest Rd. / Siempre Viva Rd.	67.2	E	67.6	E	32.2	C	49.4	D
47 Otay Mesa Rd. / Sanyo Ave.	284.4	F	265.5	F	81.9	F	63.5	E
48 Airway Rd. / Sanyo Ave.	225.6	F	229.8	F	49.7	D	38.6	D
49 Paseo de las Americas / Heinrich Hertz Dr.	(3) 988.3	F	(3) 231.4	F	26.0	C	14.2	B
50 Paseo de las Americas / Marconi Dr.	(4) 983.1	F	(4) 147.8	F	18.5	B	26.4	C
51 Heritage Rd. / Otay Valley Rd./ Datsun St.	443.8	F	564.4	F	138.0	F	239.1	F
52 Aviator Rd. / La Media Rd.	62.3	E	27.5	C	26.0	C	13.6	B
53 Otay Valley Rd. / Avenida De Las Vistas	659.8	F	291.3	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay values higher than two times the LOS E value of 80.0 seconds.

Legend

CD = Control Delay

LOS = Level of Service

(3) Unsignalized: Eastbound left turn at LOS F (AM peak hour); Eastbound left and right turns at LOS F (PM peak hour).

(4) Unsignalized: Westbound left turn at LOS F (AM and PM peak hours); Westbound right turn at LOS F (PM peak hour).

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
<i>Source: 2000 Highway Capacity Manual</i>	

Of the 53 intersections evaluated, 40 intersections are expected to be at levels of service “E” or “F” during the AM peak hour and 43 during the PM peak hour. With feasible mitigation, 27 intersections would remain to operate unacceptably in the AM peak hour and 29 intersections would remain to operate unacceptably in the PM peak hour. **Table 6-4** shows lane configurations at each intersections and also shows lanes to be added after mitigation.

The SR-905 interchange at Caliente Avenue and La Media Road are recommended for major improvements for all alternatives. The Caltrans designs of these interchanges are based on forecasts of future traffic from the build out of only approximately fifty percent of Otay Mesa land uses. The Heritage Road interchange currently does not have a final, funded design, so that the lane configurations at the ramp intersections included in this report should be incorporated into the final design.

Provided below is a summary of mitigation recommended at the interchanges and major intersections. Some intersection impacts are not proposed to be fully mitigated, usually because it would require excessively wide intersections and turning lanes and non-standard intersection configurations.

#2. I-805 Northbound Ramps / Palm Avenue – The Otay Mesa P.F.F.P includes a bridge widening project at this location. The preliminary design includes a third through lane in each direction, an additional westbound right turn lane (total of two), northbound off-ramp widening for an additional lane (total of three), southbound off-ramp widening for an additional lane (total of four), and the addition of a fourth eastbound lane and a loop on-ramp in the southeast quadrant.

#4. Caliente Avenue / Otay Mesa Road – At this intersection of two six-lane Primary Arterials, a separate right turn only lane in the northbound direction is recommended. Although the northbound right turn volumes are expected to be high enough to warrant dual right turns, this intersection is near San Ysidro High School and in the interest of pedestrian safety and convenience, the dual right turn lanes are not recommended.

TABLE 6-4

Buildout 3B With La Media Road Intersection Mitigation

		Without Mitigation												With Mitigation											
		NB				SB				EB				NB				SB				EB			
Intersection		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
1	Palm Ave. / I-805 SB Ramps				1	1*	1		2	1	2	2					1	1*	2		2	1	2	2	
2	Palm Ave. / I-805 NB Ramps	S	1*	1				2	2			2	1	1	1*	1					3	1		3	2
3	Palm Ave. / Dennerly Rd.	3	1	S	2	2	1	2	3	1	2	3	1												
4	Otay Mesa Rd. / Caliente Ave.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	S	2	3	1	2	3	1
5	Caliente Ave. / SR-905 WB Ramps	1	3			3	S					S	1	1			2	3		3	1		S	1	1
6	Caliente Ave. / SR-905 EB Ramps		3	S	1	3		1	1*	S					3	1	2	3			1	1*	1		
7	Caliente Ave. / Airway Rd.	2	3	S	2	3	S	2	2	S	2	2	1	2	3	1	2	3	S	2	2	1	2	2	1
8	Caliente Ave. / Beyer Blvd.	2	2	S	2	3	S	2	2	S	1	1	1	2	2	S	2	2	2	2	2	1	1	1	1
9	Otay Mesa Rd. / Heritage Rd.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2
10	Heritage Rd. / SR-905 WB Ramps		3	S	2	3					S		2		3	2	2	3					S		2
11	Heritage Rd. / SR-905 EB Ramps		3	S	2	3					2		S		3	1	2	3					2		1
12	Heritage Rd. / Airway Rd.				2		1	2	3		2	3	S				2		1	2	3			3	2
13	Heritage Rd. / Siempre Viva Rd.																								
14	Otay Mesa Rd. / Cactus Rd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	2	2	3	1
15	Airway Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2*	1	2	3*	1	2	3	2
16	Siempre Viva Rd. / Cactus Rd.		2	S	2	2					2		2		2	1	2	2					2		2
17	Otay Mesa Rd. / Britannia Blvd.	2	1	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	1	2	3	1
18	Britannia Blvd. / SR-905 WB Ramps	2	3			3	S				1	1	1	2	3			3*	1				1	1*	1
19	Britannia Blvd. / SR-905 EB Ramps		3	S	2	3		S	1	2					3	2	2	3		S	1	2			
20	Britannia Blvd. / Airway Rd.	2	3	S	2	3	S	2	3	S	2	2	S	2	3	1	2	3	2	2	3	1	2	2	2
21	Siempre Viva Rd. / Britannia Blvd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	2	2	3	1	2	3	2
22	Otay Mesa Rd. / La Media Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	2	2	3	2	2	3	2	2	3	2

Legend

L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

* Notes: #1-SB through is shared LTR without mitigation; shared LT with mitigation.

#2-NB through is shared LTR.

#5-SB is 2T-TR-R without mitigation.

#6-EB through is shared LTR without mitigation; shared LT with mitigation.

#14 - NB through is shared TR.

#15-SB through is shared TR.

#15-EB through is shared TR.

#17-NB through is shared TR.

#18- SB add right turn lane; 3rd SB lane striped for shared TR; WB through restriped for LTR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 6-4 (Continued)

Buildout 3B With La Media Road Intersection Mitigation

Intersection	Without Mitigation												With Mitigation											
	NB			SB			EB			WB			NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
23 La Media Rd. / SR-905 WB Ramps	2	2	1		3	1	S	1	1	1	1*	1	2	3	1		3	1	1		1	1	1*	1
24 La Media Rd. / SR-905 EB Ramps	2	3			2	1	2		2				2	3			3	1	2		2			
25 La Media Rd. / Airway Rd.	2	2	S	2	3	S	2	2	S	2	2	S	2	2	1	2	3	2	2	2	1	2	2	2
26 La Media Rd. / Siempre Viva Rd.				2	2	S	2	3				3	S			2	1*	2*	2	3			3	2
27 La Media Rd. / Lone Star Rd.		3	S	2	3					2	2	S				3	1	2	3			2		2*
28 Lone Star Rd. / SR-125 SB Off Ramp				2			3			3														
29 Lone Star Rd. / SR-125 NB On Ramp							2	3			3	2												
30 Lone Star Rd. / Piper Ranch Rd.	2		1					3	S	2	3													
31 Otay Mesa Rd. / Piper Ranch Rd.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	2	1	2	2	3	1	2	3	1
32 Otay Mesa Rd. / SR-125 SB Off Ramp				2		1		3				3				1	1*	1						
33 Otay Mesa Rd. / SR-125 NB On Ramp							2	3				3	2											
34 Otay Mesa Rd. / Harvest Rd.	1	1	S	1	1	S	1	3	S	1	3	S	2	1	S	1	1	S	1	3	1	1	3	S
35 Siempre Viva Rd. / Otay Center Dr.	1	1	S	1	2	S	1	3	S	1	3	S	1	1	1	2	1	1	2	3	1	2	3	1
36 Siempre Viva Rd. / SR-905 SB to EB Ramp			2					3	S	2	3													
36A Siempre Viva Rd. / SR-905 SB to WB Ramp						1						3					2						3	
37 Siempre Viva Rd. / SR-905 NB Ramps	S	1	2				2	3			3	1	S	1	2			2	3			3	2	
38 Siempre Viva Rd. / Paseo de las Americas	1	2	S	1	2	S	1	3	1	1	3	S	1	1*	1*	1	1	2	2	3	1	1	3	1
39 Dennerly Rd. / Del Sol Blvd.				1		1	1	2			2	S												
40 Ocean View Hills Pkwy. / Del Sol Blvd.	2	3	S	1	2	S	1	1	1	1	1	S	2	3	S	1	2	1	1*	1*	1	1	1	S
41 Ocean View Hills Pkwy. / Street A	1	1	1	1	1	S	1	3	S	1	3	S	2	1	1	1	1	S	1	3	1	1	3	S
42 Old Otay Mesa Rd. / Beyer Blvd.	1	1	S	1	1	S	2	2	1	2	2	S	1	1	1	1	1	1	2	2	1	2	2	S
43 Otay Mesa Rd. / Corporate Center Dr.	2	1	S	1	1	1	2	3	S	2	3	1	2	1	S	2	1*	1	2	3	1	2	3	1
44 Otay Mesa Rd. / Innovative Dr.	1	1	S	1	1	1	2	3	S	2	3	1	1	1	S	2	1*	1	2	3	S	2	3	1

Legend

L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

*Notes: #23-WB middle lane is shared LT.

#26-SB lanes restriped for 1T-2R lanes.
#27-WB lanes restriped for 2R lanes.
#32-SB middle lane is striped for shared LR.
#38-NB lanes restriped for L-LT-R.
#40-EB lanes restriped for L-LT-R.
#43-SB is 2L-TR-R.
#44-SB is 2L-TR-R.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 6-4 (Continued)

Buildout 3B With La Media Road Intersection Mitigation

Intersection	Without Mitigation												With Mitigation											
	NB			SB			EB			WB			NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
45 Harvest Rd. / Airway Rd.	2		1					2	S	2	2		2		1				2	1	2	2		
46 Harvest Rd. / Siempre Viva Rd.	1	2	S	1	2	S	2	3	S	2	3	S	1	2	S	2	2	1	2	3	S	2	3	1
47 Otay Mesa Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	1	1	2	3	2	2	3	1	
48 Airway Rd. / Sanyo Ave.	1	2	S	1	2	S	2	2	S	2	2	S	2	2	1	2	2	2	2	2	2	2	2	1
49 Paseo de las Americas / Heinrich Hertz Dr.	1	2			2	S	1		1				2	2		2	S	1		1				
50 Paseo de las Americas / Marconi Dr.		2	S	1	2					1		1		2	S	2	2					1		1
51 Heritage Rd. / Otay Valley Rd.	2	3	S	2	3	S	1	2	S	1	2	S	2	3	1	2	3	2	2	2	1	2	2	1
52 Aviator Rd. / La Media Rd.	2	3			3	S	2		1				2	3		3	1	2		1				
53 Otay Valley Rd. / Avenida De Las Vistas	1	3	S	1	3	S	1	1	S	1	1	1												

Legend

L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

#5. Caliente Avenue / SR-905 Westbound Ramps – Overcrossing widening to accommodate northbound dual left turn lanes is recommended. Additionally, a single southbound right turn only lane is recommended. Caliente Avenue is a school pedestrian route to the San Ysidro High School. Although southbound right turn volumes are expected to be high enough to warrant right turn lanes, the dual right turn lanes are not recommended.

#6. Caliente Avenue / SR-905 Eastbound Ramps - Overcrossing widening to accommodate dual northbound left turn lanes at the SR-905 westbound ramps also should extend through this intersection, accommodating dual southbound left-turn lanes. A separate northbound right turn lane and ramp widening for an additional eastbound right turn lane are recommended. Although the eastbound right turn volumes are expected to be high enough for dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#7. Caliente Avenue at Airway Road - Separate right turn only lanes are recommended in the eastbound, northbound, and westbound directions. Although the northbound and westbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#8. Caliente Avenue at Beyer Boulevard - Dual right turn lanes southbound to westbound are recommended. A separate eastbound right turn lane is recommended.

#9. Heritage Road / Otay Mesa Road - Separate right turn only lanes are recommended in the northbound and southbound directions. Existing right turn lanes are in place eastbound and westbound. A second westbound right turn lane is recommended.

#10. Heritage Road / SR-905 Westbound Ramps - Two right turn only lanes are recommended in the northbound direction onto the westbound on-ramp.

#11. Heritage Road / SR-905 Eastbound Ramps - A separate right turn lane in the northbound direction to the eastbound on-ramp, plus an additional lane in the westbound direction on the eastbound off-ramp are recommended.

#12. Heritage Road / Airway Road – Dual right turn lanes are recommended in the westbound direction.

#14. Cactus Road / Otay Mesa Road - Dual right turn lanes in the eastbound direction, and one in the westbound direction are recommended.

#15. Cactus Road / Airway Road - Dual right turn lanes in the westbound direction, and single right turn lanes are recommended in the south, north, and eastbound directions. A shared through / right turn lane is recommended southbound and eastbound.

#16. Cactus Road / Siempre Viva Road - Dual right turn lanes in the westbound direction and a single right turn lane are recommended in the northbound direction.

#17. Britannia Boulevard / Otay Mesa Road - A single right turn only lane in the eastbound and westbound directions are recommended.

#18. Britannia Boulevard / SR-905 Westbound Ramps - A single southbound right turn lane, and also restriping the third southbound through lane as an optional through / right turn are recommended. The middle lane in the westbound direction is recommended to be restriped for a shared left / through / right movement.

#19. Britannia Boulevard / SR-905 Eastbound Ramps - Dual right turn lanes northbound are recommended.

#20. Britannia Boulevard / Airway Road - Dual right turn lanes in the south and westbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#21. Britannia Boulevard / Siempre viva Road - Dual right turn lanes in the west, and southbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#22. La Media Road / Otay Mesa Road – Dual right turn lanes are recommended at all approaches.

#23. La Media Road / SR-905 Westbound Ramps - It is recommended that the eastbound through movement be eliminated so that the northbound right turn to the SR-905 westbound on-ramp can be a continuous movement, without a conflicting movement at the traffic signal. Only a pedestrian signal would cause this traffic to stop. Additionally a third northbound through lane is recommended. These recommended improvements would require widening in the northbound direction along La Media Road.

#24. La Media Road / SR-905 Eastbound Ramps - The addition of a third southbound through lane is recommended. This improvement would require widening La Media Road in the southbound direction.

#25. La Media Road / Airway Road - The addition of dual right turn lanes westbound and southbound, and single right turn lanes eastbound and northbound are recommended.

#26. La Media Road / Siempre Viva Road - The addition of dual right turn lanes westbound, and one right turn lane southbound are recommended. The southbound lanes should be striped for two lefts / one through / two right turn lanes. The southbound through lane will be restricted to unladen trucks destined to the Border Truck Road.

#27. La Media Road / Lone Star Road - A northbound right turn lane is recommended. The westbound through lanes are recommended to be striped for two left and two right turn lanes.

#31. Piper Ranch Road / Otay Mesa Road – Single right turn lanes in the east, west, and northbound directions are recommended. Southbound, two right turn lanes are recommended. Southbound lanes should be striped for two left / one through / two right turn lanes.

#32. SR-125 Southbound Off-Ramp / Otay Mesa Road – No additional lanes are recommended, but restriping the southbound middle lane for optional left-right turns is recommended.

#34. Harvest Road / Otay Mesa Road – An additional eastbound right turn lane is recommended. An additional northbound left turn lane is also recommended.

#35. Otay Center Drive / Siempre Viva Road - Added lanes for single right turn lanes are recommended at all approaches. Dual left turn lanes are recommended east, west, and southbound.

#36 – 36A. SR-905 Southbound Ramps / Siempre Viva Road - The SR-905 southbound off-ramp to westbound Siempre Viva Road is recommended to be signalized, and widened for an additional southbound turn lane.

#37. SR-905 Northbound Ramps / Siempre Viva Road – A second westbound right turn lane is recommended.

#38. Paseo de las Americas / Siempre Viva Road - Added westbound and southbound right turn lanes are recommended, plus an eastbound left turn lane. The northbound lanes should be restriped for one left, one left / through, one right turn lane. The southbound lanes should be restriped for one left / one through / two right turn lanes.

#40. Ocean View Hills Parkway / Del Sol Boulevard - One added southbound right turn lane is recommended. The eastbound through lane should be restriped for optional left turns / through.

#41. Ocean View Hills Parkway / Street “A” - An eastbound single right turn lane and an added northbound left turn lane are recommended.

#42. Old Otay Mesa Road / Beyer Boulevard - Northbound and southbound right turn lanes are recommended.

#43. Otay Mesa Road / Corporate Center Drive - Northbound and southbound added left turn lanes, and a separate eastbound right turn lane are recommended. The southbound through lane should be striped as a shared through / right turn lane.

#44. Otay Mesa Road / Innovative Drive - A second southbound left turn lane is recommended. The southbound through lane should be striped as a shared through / right turn lane.

#45. Airway Road / Harvest Road - An eastbound right turn lane is recommended.

#46. Harvest Road / Siempre viva Road - Separate right turn lanes are recommended westbound and southbound. An additional southbound left turn lane is recommended.

#47. Otay Mesa Road / Sanyo Avenue - Eastbound dual right turn lanes, and single right turn lanes northbound and westbound are recommended. Restriping northbound lanes for dual left turns plus one through lane is recommended.

#48. Airway Road / Sanyo Avenue - Dual right turn lanes in the eastbound and southbound directions are recommended. Single right turn lanes northbound and westbound are recommended. Northbound and southbound added lanes for dual left turns are recommended.

#49. Paseo de las Americas / Heinrich Hertz Drive - The installation of a traffic signal and widening for an added northbound left turn lane are recommended.

#50. Paseo de las Americas / Marconi Drive - The installation of a traffic signal and adding a southbound left turn lane are recommended.

#51. Heritage Road / Otay Valley Road - Dual right turn lanes southbound, and single right turn lanes at the other approaches are recommended. East and westbound dual left turn lanes are recommended.

#52. La Media Road / Aviator Road - A southbound right turn lane is recommended.

6.5 Ramp Meter Operations

Table 6-5 shows buildout ramp meter operations at all freeway on-ramps within the study area.

The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. Of the 28 hours ramp meters were evaluated during the AM and PM peak hours, ramp meter delays above 15 minutes would occur at five locations during the AM peak hour and at eleven locations during the PM peak hour.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service “E” or “F”. The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

The freeway on-ramps evaluated would have ramp lengths from 650 feet to 1,200 feet. Assuming two lanes at the ramp meters, seven locations would have queues exceeding the ramp storage during the AM peak hour, and at eleven locations during the PM peak hour.

There are no performance criteria regarding excessive queues in the regional guidelines. However, the guidelines state the following:

TABLE 6-5

Buildout Alternate 3B With La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand* *	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	I-805 / Palm Avenue Northbound (From Westbound)	1,250	960	290	18.1	7,250 (E)
PM	I-805 / Palm Avenue Northbound (From Westbound)	1,345	960	385	24.1	9,625 (E)
AM	I-805 / Palm Avenue Northbound (From Eastbound)	655	960	None	None	None
PM	I-805 / Palm Avenue Northbound (From Eastbound)	540	960	None	None	None
AM	I-805 / Palm Avenue Southbound	455	960	None	None	None
PM	I-805 / Palm Avenue Southbound	645	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand* *	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Caliente Avenue Westbound	1,740	960	780	48.75	19,500 (E)
PM	SR-905 / Caliente Avenue Westbound	1,535	960	575	35.9	14,375(E)
AM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None
PM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand* *	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Heritage Road Westbound	1,135	960	175	10.9	4,375 (E)
PM	SR-905 / Heritage Road Westbound	2,515	960	1,555	97.2	38,875 (E)
AM	SR-905 / Heritage Road Eastbound	360	960	None	None	None
PM	SR-905 / Heritage Road Eastbound	800	960	None	None	None

*=Most restrictive meter rate used by Caltrans.

**=Total hourly volume entering from both directions.

(E) = Exceeds ramp storage length.

TABLE 6-5 (Cont.)

Buildout Alternate 3B With La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Britannia Blvd. Westbound	1,350	960	390	24.4	9,750 (E)
PM	SR-905 / Britannia Blvd. Westbound	3,340	960	2,380	148.8	59,500(E)
AM	SR-905 / Britannia Blvd. Eastbound	710	960	None	None	None
PM	SR-905 / Britannia Blvd. Eastbound	1,400	960	440	27.5	11,000 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / La Media Road Westbound	1,950	960	990	61.9	24,750 (E)
PM	SR-905 / La Media Road Westbound	2,860	960	1,900	118.8	47,500 (E)
AM	SR-905 / La Media Road Eastbound	1,000	960	40	2.5	1,000
PM	SR-905 / La Media Road Eastbound	1,950	960	990	61.9	24,750 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Siempre Viva Rd. Northbound	1,180	960	220	13.8	5,500 (E)
PM	SR-905 / Siempre Viva Rd. Northbound	3,440	960	2,480	155.0	62,000 (E)
AM	SR-905 / Siempre Viva Rd. Southbound	750	960	None	None	None
PM	SR-905 / Siempre Viva Rd. Southbound	1,660	960	700	43.8	17,500 (E)

*=Most restrictive meter rate used by Caltrans.

**=Total hourly volume entering from both directions.

(E) = Exceeds ramp storage length.

TABLE 6-5

Buildout Alternate 3B With La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Otay Mesa Rd. Northbound	1,680	960	720	45.0	18,000 (E)
PM	SR-125 / Otay Mesa Rd. Northbound	2,455	960	1,490	93.1	37,250 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Lone Star Rd. Northbound	850	960	None	None	None
PM	SR-125 / Lone Star Rd. Northbound	3,615	960	2,655	165.9	66,375 (E)

* Most restrictive meter rate used, per Caltrans.

** = Total hourly volume entering from both directions.

Excess Demand X 60MIN = Delay (Minutes)

Meter Rate

(E) = Exceeds ramp storage length.

Note: Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available, or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving traffic at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, use another freeway, or stay on surface streets.

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6.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the interchange ramps within the study area, and queue lengths without intersection mitigation are shown in **Table 6-6**, while **Table 6-7** shows queue lengths with mitigation.

There are no intersection queue intersection queue length performance criteria within the Regional SANTEC / ITE Traffic Impact Study Guidelines. This queue analysis was provided to primarily evaluate whether interchanges could accommodate the projected traffic volumes and then compare the three scenarios evaluated in this report.

Of the 164 queues evaluated without intersection mitigation, during AM and PM peak hours, 77 are expected to be of excess length for the vehicle storage available between these closely spaced intersections at freeway interchange ramps for this scenario. With intersection mitigation, 188 queues were evaluated and 67 are expected to be of excess length, extending through the adjacent intersection.

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	200	3,475	-	450	None	3,025	-
Caliente Ave. / SR-905 WB Ramps	-	1,073	-	450	-	625	-	2,015	1,743	-	450	1,565	1,293	-
Caliente Ave. / SR-905 EB Ramps	-	118	480	450	-	None	30	-	1,403	-	300	-	1,103	-
Caliente Ave. / Airway Rd.	-	350	1,478	300	-	50	1,178	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	235	2,038	-	750	None	1,288	-
Heritage Rd. / SR-905 WB Ramps	-	30	325	750	-	None	None	-	2,020	-	750	-	1,270	-
Heritage Rd. / SR-905 EB Ramps	-	130	80	750	-	None	None	-	2,038	-	750	-	1,288	-
Heritage Rd. / Airway Rd.	245	-	2,775	750	None	-	2,025	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	713	1,120	1,238	900	None	220	338
Britannia Blvd. / SR-905 WB Ramps	725	678	-	900	None	None	-	1,255	253	-	450	855	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,233	328	450	-	783	None	-	2,750	-	900	-	1,850	-
Britannia Blvd. / Airway Rd.	-	7,600	1,795	900	-	6,700	895	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,633	3,050	-	450	1,183	2,600	-
La Media Rd. / SR-905 WB Ramps	118	2,078	-	450	None	1,628	-	120	2,950	1,093	900	None	2,050	193
La Media Rd. / SR-905 EB Ramps	95	5,925	-	900	None	2,375	-	1,088	1,093	-	900	188	193	-
La Media Rd. / Airway Rd.	-	4,750	3,275	900	-	3,850	2,375	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	1,785	-	450	160	1,335	-
Caliente Ave. / SR-905 WB Ramps	-	1,073	-	450	-	623	-	1,548	1,158	-	450	1,098	708	-
Caliente Ave. / SR-905 EB Ramps	-	110	415	450	-	None	None	-	1,303	-	300	-	1,008	-
Caliente Ave. / Airway Rd.	-	1,398	598	300	-	1,098	298	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	228	608	-	750	None	None	-
Heritage Rd. / SR-905 WB Ramps	-	98	1,208	750	-	None	458	-	2,200	-	750	-	1,450	-
Heritage Rd. / SR-905 EB Ramps	-	313	425	750	-	None	None	-	2,145	-	750	-	1,395	-
Heritage Rd. / Airway Rd.	63	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	460	483	433	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	1,313	890	-	900	413	None	-	6,950	35	-	450	6,500	None	-
Britannia Blvd. / SR-905 EB Ramps	-	138	268	450	-	None	None	-	3,650	-	900	-	4,750	-
Britannia Blvd. / Airway Rd.	-	1,808	1,230	900	-	None	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	3,100	-	450	340	2,650	-
La Media Rd. / SR-905 WB Ramps	295	2,675	-	450	None	2,225	-	305	3,000	3,400	900	None	2,100	2,500
La Media Rd. / SR-905 EB Ramps	585	2,650	-	900	None	1,750	-	1,663	1,113	-	900	763	213	-
La Media Rd. / Airway Rd.	-	2,333	873	900	-	1,433	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound			
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	-	183	50	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	188	615	600	-	None	15	-	-	240	3,600	1,000	-	None	2,600
Palm Ave. Dennerly Rd.	395	208	493	1,000	None	None	None	-	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	960	5,050	-	600	360	4,450	-	-
Siempre Viva Rd. / SR-905 SB Ramps	-	678	-	300	-	378	-	348	-	-	600	None	-	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	730	600	-	None	130	-	590	1,395	1,150	-	None	275	-
Siempre Viva Rd. / Paseo de las Americas	2,125	1,095	3,775	1,150	975	None	2,625	-	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	220	-	140	300	None	-	-	None
Lone Star Rd. / SR-125 SB Off Ramp	-	623	-	300	-	323	-	-	185	-	500	-	None	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	78	500	-	-	None	-	143	313	600	-	None	None	None
Lone Star Rd. / Piper Ranch Rd.	-	790	-	600	-	190	-	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	148	1,613	-	2,000	None	None	-	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	500	-	2,000	-	None	-	-	110	-	500	-	None	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	128	500	-	-	None	-	270	60	700	-	None	None	None
Otay Mesa Rd. / Harvest Rd.	-	2,225	195	700	-	1,525	None	-	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound			
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-		508	50	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	373	473	600	-	None	None		-	548	4,175	1,000	-	None	3,175
Palm Ave. Denney Rd.	2,383	300	710	1,000	1,383	None	None		-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-		830	803	-	600	230	203	-
Siempre Viva Rd. / SR-905 SB Ramps	-	3,500	-	300	-	3,200	-		1,435	-	-	600	835	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,200	600	-	None	3,600		-	2,625	2,283	1,150	-	1,475	1,133
Siempre Viva Rd. / Paseo de las Americas	393	445	2,280	1,150	None	None	1,130		-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-		345	-	1,550	300	45	-	1,250
Lone Star Rd. / SR-125 SB Off Ramp	-	130	-	300	-	None	-		-	153	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	348	500	-	-	None		-	83	543	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	300	-	600	-	None	-		-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-		295	2,215	-	2,000	None	215	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	320	-	2,000	-	None	-		-	200	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	330	500	-	-	None		-	535	485	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	-	250	50	700	-	None	None		-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Southbound				Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-		200	138	8,100	450	None	None	7,650
Caliente Ave. / SR-905 WB Ramps	1,323	343	-	450	873	None	-		583	1,463	-	450	133	1,012	-
Caliente Ave. / SR-905 EB Ramps	-	185	200	450	-	None	None		-	1,258	223	300	-	958	None
Caliente Ave. / Airway Rd.	-	350	1,478	300	-	50	1,178		-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-		228	348	223	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	30	225	750	-	None	None		-	280	1,525	750	-	None	775
Heritage Rd. / SR-905 EB Ramps	-	130	130	750	-	None	None		-	1,083	135	750	-	333	None
Heritage Rd. / Airway Rd.	168	-	2,650	750	None	-	1,900		-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-		713	1,120	1,238	900	None	220	338
Britannia Blvd. / SR-905 WB Ramps	418	578	-	900	None	None	-		780	130	-	450	330	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,323	328	450	-	873	None		-	1,583	440	900	-	683	None
Britannia Blvd. / Airway Rd.	1,795	3,200	1,795	900	895	2,300	895		-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-		1,633	1,048	600	450	1,183	598	250
La Media Rd. / SR-905 WB Ramps	118	2,070	-	450	None	1,620	-		120	1,038	-	900	None	138	-
La Media Rd. / SR-905 EB Ramps	95	3,275	-	900	None	2,375	-		1,088	1,093	-	900	188	193	-
La Media Rd. / Airway Rd.	1,370	1,805	3,275	900	470	905	2,375		-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	370	1,760	450	160	None	1,310
Caliente Ave. / SR-905 WB Ramps	978	483	-	450	528	33	-	390	1,158	-	450	None	708	-
Caliente Ave. / SR-905 EB Ramps	-	230	188	450	-	None	None	-	1,173	263	300	-	878	None
Caliente Ave. / Airway Rd.	-	1,398	598	300	-	1,098	298	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	228	348	223	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	98	1,208	750	-	None	458	-	280	1,525	750	-	None	775
Heritage Rd. / SR-905 EB Ramps	-	313	425	750	-	None	None	-	1,083	135	750	-	333	None
Heritage Rd. / Airway Rd.	63	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	460	483	433	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	385	870	-	900	None	None	-	6,950	35	-	450	6,500	None	-
Britannia Blvd. / SR-905 EB Ramps	-	138	268	450	-	None	None	-	2,700	820	900	-	1,800	None
Britannia Blvd. / Airway Rd.	565	603	1,230	900	None	None	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	1,085	600	450	340	635	250
La Media Rd. / SR-905 WB Ramps	295	2,675	-	450	None	2,225	-	305	990	-	900	None	90	-
La Media Rd. / SR-905 EB Ramps	585	1,310	-	900	None	410	-	1,663	1,113	-	900	760	213	-
La Media Rd. / Airway Rd.	288	888	850	900	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound			
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-		228	78	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	315	128	-	600	None	None	-		-	40	283	1,000	-	None	None
Palm Ave. Dennerly Rd.	395	208	493	1,000	None	None	None		-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-		308	2,750	1,878	600	None	2,150	1,278
Siempre Viva Rd. / SR-905 SB Ramps	-	678	-	300	-	378	-		348	-	-	600	None	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	730	600	-	None	130		-	538	518	1,150	-	None	None
Siempre Viva Rd. / Paseo de las Americas	2,170	1,095	1,138	1,150	1,020	None	None		-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-		220	-	140	300	None	-	None
Lone Star Rd. / SR-125 SB Off Ramp	-	623	-	300	-	323	-		-	185	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	78	500	-	-	None		-	143	513	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	790	-	600	-	190	-		-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-		148	958	85	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	500	-	2,000	-	None	-		-	110	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	128	500	-	-	None		-	270	60	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	225	470	195	700	None	None	None		-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound			
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-		553	195	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	173	198	-	600	None	None	-		-	75	338	1,000	-	None	None
Palm Ave. Dennerly Rd.	2,383	300	710	1,000	1,383	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-		280	610	28	600	None	10	None
Siempre Viva Rd. / SR-905 SB Ramps	-	3,500	-	300	-	3,200	-		1,435	-	-	600	835	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,200	600	-	None	3,600		-	910	2,900	1,150	-	None	1,750
Siempre Viva Rd. / Paseo de las Americas	403	445	748	1,150	None	None	None		-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-		345	-	1,550	300	45	-	1,250
Lone Star Rd. / SR-125 SB Off Ramp	-	130	-	300	-	None	-		-	153	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	348	500	-	-	None		-	83	543	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	300	-	600	-	None	-		-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-		295	1,715	45	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	320	-	2,000	-	None	-		-	200	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	315	500	-	-	None		-	535	485	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	60	453	50	700	None	None	None		-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

7.0 SCENARIO 3B WITHOUT LA MEDIA ROAD

7.1 3B Scenario Assumed Land Use and Transportation Network

The 3B Without La Media Road scenario land use assumptions are the same as 3B With La Media Road, allowing 18,774 dwelling units compared to 12,206 within the Adopted Community Plan. The traffic forecast for this alternative assumed 3,917,000 square of commercial uses and 54,461,000 square feet of industrial uses. The buildout of this plan would generate 1,045,025 average daily vehicle trips. The circulation element roadways for this alternative include those assumed in the 3B With La Media Road scenario, with only one change. The street network change compared to 3B With La Media Road is the deletion of the La Media Road connector across the Otay River Valley between Birch Road in Chula Vista and Lone Star Road in San Diego.

7.2 Segment Level of Service

Roadway segment levels of service are similar to 3B With La Media Road, except along La Media Road north of Otay Mesa Road, and Otay Mesa Road east of La Media Road. **Figure 7-1** shows the projected buildout average daily traffic trips generated on the street system due to the land uses assumed under the 3B Without La Media Road land use and street network. The traffic model average daily traffic volume plots from which the volumes shown in this figure are taken are in Appendix D, for reference. Also in the appendix is documentation if volume adjustments made to several segments. **Table 7-1** indicates the roadway segment level of service for numerous roadway segments as a result of the projected average daily traffic and the capacity of the roadway. The highest forecasted volumes between circulation

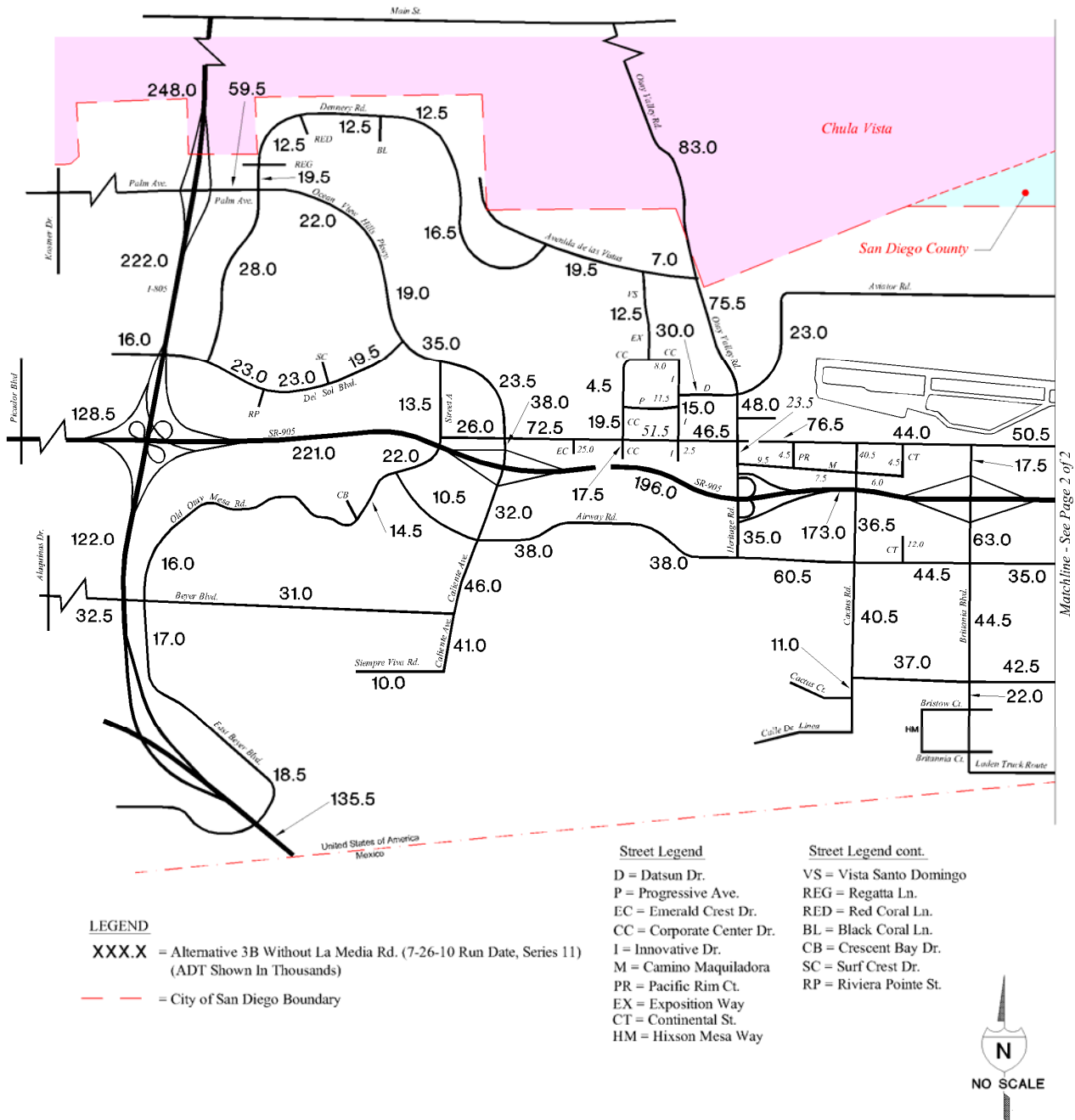


FIGURE 7-1

Scenario 3B Without La Media Road Average Daily Traffic

Scenario 3B Without La Media Road Average Daily Traffic

TABLE 7-1

Buildout Scenario 3B Without La Media Rd.

Average Daily Traffic & Level of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Otay Mesa Road	Street A to Caliente Ave.	1	6-PA	60,000	26,000	0.43	B	6-M	0.52	B	N
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	72,500	1.21	F	N	-	-	Y
	Corporate Center Dr. to Innovative Dr.	3	6-PA	60,000	51,500	0.86	D	N	-	-	N
	Innovative Dr. to Heritage Rd.	4	6-PA	60,000	46,500	0.78	C	N	-	-	N
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	76,500	1.28	F	N	-	-	Y
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	44,000	0.73	C	N	-	-	N
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	50,500	0.84	D	N	-	-	N
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	42,500	0.77	C	6-PA	0.71	C	N
	La Media Rd. to Piper Ranch Rd.	9	8-M	70,000	54,000	0.77	C	6-PA	0.90	D	N
	Piper Ranch Rd. to SR-125	10	4-P	45,000	28,500	0.63	C	6-PA	0.48	B	N
	SR-125 to Harvest Rd.	11	4-M	40,000	36,000	0.90	E	6-PA	0.60	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	32,000	0.80	D	6-PA	0.53	B	N
	Sanyo Ave. to Enrico Fermi Dr.	13	4-M	40,000	7,500	0.19	A	6-PA	0.13	A	N
Airway Road	Old Otay Mesa Rd. to Caliente Ave.	14	4-CL	30,000	10,500	0.35	A	N	-	-	N
	Caliente Ave. to Heritage Rd.	15	4-M	40,000	38,000	0.95	E	N	-	-	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	60,500	1.52	F	6-PA	1.01	F	Y
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	44,500	1.11	F	6-M	0.89	D	N
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	35,000	0.88	D	N	-	-	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	34,000	0.85	D	N	-	-	N
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	26,500	0.66	C	N	-	-	N
	Sanyo Ave. to Paseo de las Americas	21	4-M	40,000	10,000	0.25	A	N	-	-	N
	Paseo de las Americas to Michael Faraday Dr.	22	4-M	40,000	9,500	0.24	A	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	23	4-M	40,000	12,000	0.30	A	N	-	-	N
	Enrico Fermi Dr. to Siempre Viva Rd.*	24	4-M	40,000	12,500	0.31	A	N	-	-	N
Siempre Viva Road	Caliente Ave. to West Terminus	25	4-M	40,000	10,000	0.25	A	2-CL	0.67	C	N
	Cactus Rd. to Britannia Blvd.	27	6-PA	60,000	37,000	0.62	C	N	-	-	N
	Britannia Blvd. to La Media Rd.	28	6-PA	60,000	42,500	0.71	C	N	-	-	N
	La Media Rd. to Harvest Rd.	29	6-PA	60,000	40,500	0.68	C	N	-	-	N
	Harvest Rd. to Otay Center Dr.	30	6-PA	60,000	34,000	0.57	B	N	-	-	N
	Otay Center Dr. to SR-905	31	6-PA	60,000	60,000	1.00	E	N	-	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	63,000	1.05	F	N	-	-	Y
	Paseo de las Americas to Michael Faraday Dr.	33	4-M	40,000	23,000	0.58	C	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	34	4-M	40,000	21,000	0.53	B	N	-	-	N
	Enrico Fermi Dr. to SR-11*	35	4-M	40,000	17,500	0.44	B	N	-	-	N

*Segment in County of San Diego

Note: There is no segment #26 with this alternative.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 7-1 (Continued)
Buildout Scenario 3B Without La Media Rd.
Average Daily Traffic & Level of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	S?
Palm Ave.	I-805 to Dennerly Rd.	37	7-PA	65,000	59,500	0.92	D	N	-	-	N
Ocean View Hills Parkway	Dennerly Rd. to Del Sol Blvd.	38	4-M	40,000	22,000	0.55	C	N	-	-	N
	Del Sol Blvd. to Street "A"	39	6-M	50,000	35,000	0.70	C	N	-	-	N
	Street "A" to Otay Mesa Rd.	40	6-M	50,000	23,500	0.42	B	N	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	41	6-M	50,000	38,000	0.76	C	6-PA	0.63	C	N
	SR-905 to Airway Rd.	42	6-M	50,000	32,000	0.64	C	6-PA	0.53	B	N
	Airway Rd. to Beyer Blvd.	43	4-M	40,000	46,000	1.15	F	6-M	0.92	E	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	4-M	40,000	41,000	1.03	F	N	-	-	Y
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	44	4-M	40,000	32,500	0.81	D	N	-	-	N
	Old Otay Mesa Rd. to Caliente Ave. (3)	45	4-M	40,000	31,000	0.78	D	N	-	-	N
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	83,000	1.38	F	N	-	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	75,500	1.51	F	6-PA	1.26	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	48,000	0.96	E	6-PA	0.80	C	N
	Otay Mesa Rd. to SR-905	49	6-M	50,000	23,500	0.47	B	6-PA	0.39	A	N
	SR-905 to Airway Rd.	50	6-M	50,000	35,000	0.70	C	6-PA	0.58	B	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	40,500	1.35	F	4-M	1.01	F	Y
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	40,500	1.35	F	4-M	1.01	F	Y
	Siempre Viva Rd. to South End	54	2-CL	15,000	11,000	0.73	D	N	-	-	N
Britannia Boulevard	Otay Mesa Rd. to SR-905	55	4-M	40,000	17,500	0.44	B	6-PA	0.29	A	N
	SR-905 to Airway Rd.	56	4-M	40,000	63,000	1.58	F	6-PA	1.05	F	Y
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	44,500	1.11	F	6-M	0.89	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	22,000	2.75	F	4-CL	0.73	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	19,500	0.33	A	4-M	0.49	B	N
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	22,500	0.38	A	4-M	0.56	C	N
	Otay Mesa Rd. to SR-905	62	6-PA	60,000	37,500	0.63	C	N	-	-	N
	SR-905 to Airway Rd.	63	6-PA	60,000	64,000	1.06	F	N	-	-	Y
	Airway Rd. to Siempre Viva Rd.	64	4-M	40,000	33,000	0.83	D	5-M	0.73	C	N
Harvest Road	South of Otay Mesa Rd.	65	4-M	40,000	8,500	0.21	A	2-CL	0.57	C	N
	Airway Rd. to Otay Center Dr.	66	4-M	40,000	16,000	0.40	B	4-CL	0.53	C	N
	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	10,000	0.25	A	4-CL	0.33	A	N

*Segment in County of San Diego

Note: There is no segment #51 with this alternative.

**Segment in Chula Vista

Segment #36 was deleted.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 7-1 (Continued)
Buildout Scenario 3B Without La Media Rd.
Average Daily Traffic & Level of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	S?
Enrico Fermi Drive	SR-11 to Airway Rd.*	68	4-M	40,000	15,500	0.62	B	N	-	-	N
	Airway Rd. to Siempre Viva Rd.	69	4-M	40,000	8,000	0.20	A	4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	70	4-M	40,000	10,500	0.26	A	4-CL	0.35	B	N
Lone Star Road	SR-125 to Piper Ranch Rd.	72	4-M	40,000	35,000	0.88	D	6-PA	0.58	B	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	36,000	0.90	E	6-PA	0.60	C	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	23,000	2.88	F	4-CL	0.77	D	N
Dennery Road	Palm Ave. to Del Sol Blvd.	75	4-M	40,000	28,000	0.70	C	N	-	-	N
	Palm Ave. to Regatta Ln.	76	4-M	40,000	19,500	0.49	B	N	-	-	N
	Regatta Ln. to Red Coral Ln.	77	4-CL	30,000	12,500	0.42	B	N	-	-	N
	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	12,500	0.83	D	N	-	-	N
	Black Coral Ln. to East End	79	2-CN	10,000	16,500	1.65	F	N	-	-	Y
Avendia De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	80	2-CN	10,000	7,000	0.70	C	N	-	-	N
	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	19,500	1.95	F	N	-	-	Y
Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	82	4-CL	30,000	19,500	0.65	C	N	-	-	N
	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	23,000	2.30	F	N	-	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	23,000	1.53	F	N	-	-	Y
	Dennery Rd. to I-805	85	4-CL	30,000	16,000	0.53	C	N	-	-	N
Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	86	4-M	40,000	13,500	0.34	A	N	-	-	N
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	87	4-CL	30,000	22,000	0.73	D	N	-	-	N
	Airway Rd. to Crescent Bay Dr.	88	4-CL	30,000	14,500	0.48	C	N	-	-	N
	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	16,000	2.00	F	N	-	-	Y
Emerald Crest Dr.	Otay Mesa Rd. to South End (3)	90	4-CL	30,000	25,000	0.83	D	N	-	-	N
Corporate Center Drive	South End to Otay Mesa Rd. (3)	91	4-CL	30,000	17,500	0.58	C	N	-	-	N
	Otay Mesa Rd. to Progressive Ave.	92	4-CL	30,000	19,500	0.65	C	N	-	-	N
	Progressive Ave. to Innovative Dr.	93	2-C	8,000	8,000	1.00	E	2-CL	0.53	C	N
Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	94	4-CL	30,000	15,000	0.50	C	N	-	-	N
Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	96	4-CL	30,000	20,500	0.68	D	N	-	-	N

*Segment in County of San Diego

Note: There is no segment #71 with this alternative.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 7-1 (Continued)
Buildout Scenario 3B Without La Media Rd.
Average Daily Traffic & Level of Service

Street	Segment	#	Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	24,500	1.63	F	4-CL	0.82	D	N
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	12,000	0.80	D	N	-	-	N
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	16,500	2.06	F	4-CL	0.55	C	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	15,000	1.88	F	4-CL	0.50	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	8,000	1.00	E	2-CL	0.53	C	N
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	15,500	1.03	F	4-CL	0.52	C	N
Michael Faraday Drive	Airway Rd. to Siempre Viva Rd. (4)	103	2-CL	15,000	6,500	0.43	B	N	-	-	N
	Siempre Viva Rd. to Marconi Dr. (4)	104	2-CL	15,000	8,000	0.53	C	N	-	-	N
St. Andrews Avenue	Otay Mesa Center Rd. to La Media Rd.	105	2-C	8,000	13,500	1.69	F	4-CL	0.45	C	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	12,500	1.56	F	4-C	0.83	D	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	9,500	1.19	F	N	-	-	Y
	Pacific Rim Ct. to Cactus Rd.	109	2-C	8,000	7,500	0.94	E	N	-	-	Y
	Cactus Rd. to Continental St.	110	2-C	8,000	6,000	0.75	D	N	-	-	N
Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	111	2-C	8,000	4,500	0.56	C	N	-	-	N
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	11,500	1.44	F	N	-	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	24,000	1.60	F	4-CL	0.80	D	N
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	30,000	3.75	F	4-CL	1.00	E	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave. (3)	115	2-CL	15,000	19,000	1.27	F	4-CL	0.63	B	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	6,000	0.40	B	2-C	0.75	D	N
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	6,000	0.40	B	2-C	0.75	D	N
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	6,000	0.40	B	2-C	0.75	D	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Dr. (4)	119	2-CN	10,000	12,500	1.25	F	N	-	-	Y
Continental Street	South of Otay Mesa Rd.	120	2-C	8,000	4,500	0.56	C	N	-	-	N
	North of Airway Rd.	121	2-CL	15,000	12,000	0.80	D	N	-	-	N

*Segment in County of San Diego

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

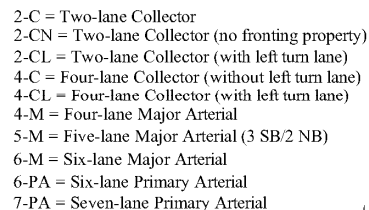
2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

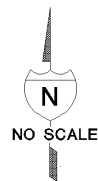
2-C = 2-lane Collector (without continuous left turn lane)

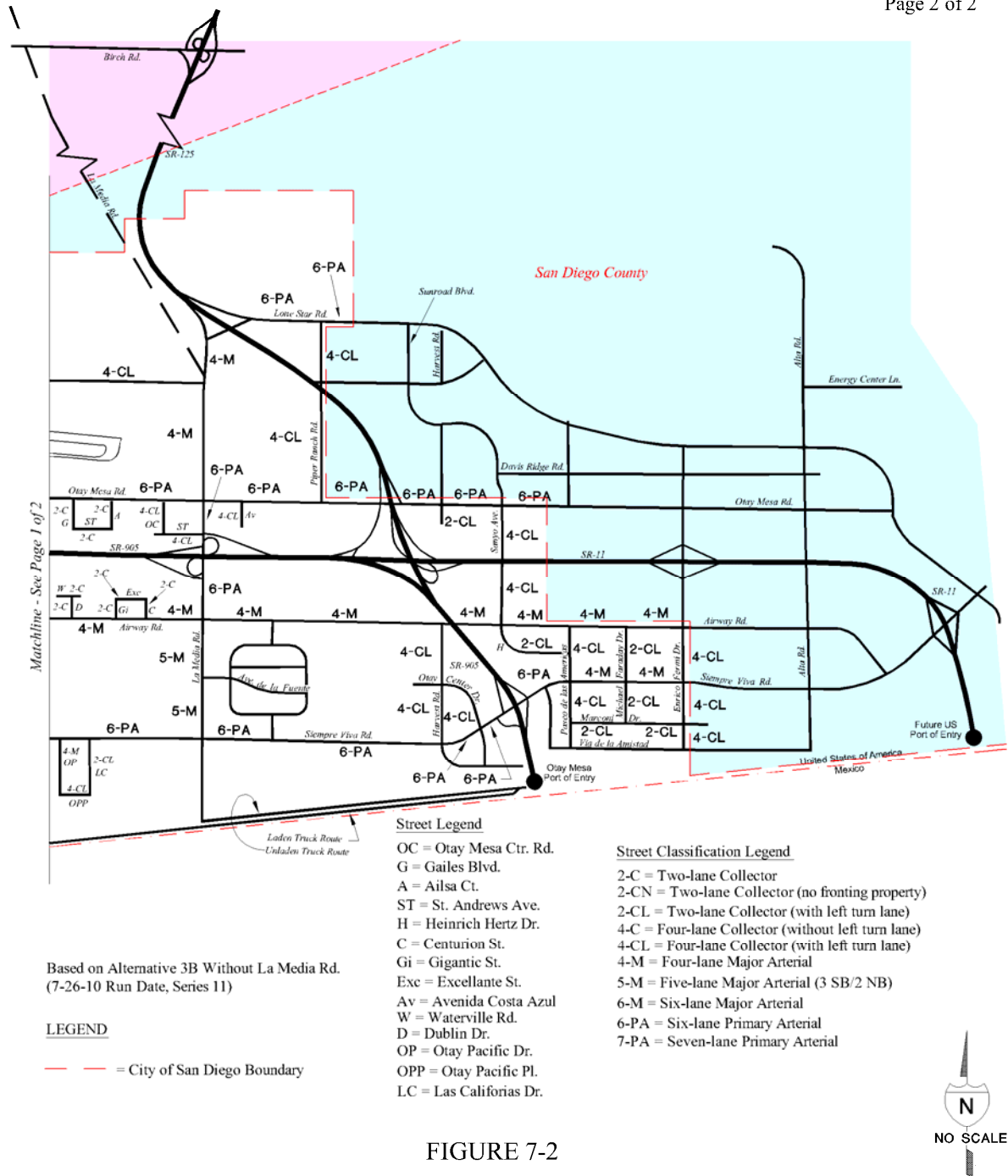
element roads were used for analysis. Also shown are recommended reclassifications of roadways. The initial “without mitigation” classification of roadways is based on the existing functional classification. Or, if the street did not exist in the existing conditions assessments, or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing sized facility due to its capacity, then the Adopted Community Plan classification was used. Failing roadway segments at level of service “E” or “F” with significant traffic impacts are summarized below. All other roadway segments are projected to operate at a level of service “D” or better, without significant traffic impacts.

Figure 7-2 shows recommended roadway classifications for the 3B Without La Media Road scenario.



Scenario 3B Without La Media Road Land Use Scenario With Proposed Roadway Classification Recommendations





Roadway Segment Impacts and Mitigation

Otay Mesa Road

- Caliente Avenue to Corporate Center Drive: level of service “F”.
- Heritage Road to Cactus Road: level of service “F”.

A reclassification of these segments from a six lane Primary Arterial to eight lanes is not recommended. Widening to eight lanes would be costly, could cause additional traffic conflicts, and intersections would be wider and less pedestrian friendly. Right turn only lanes at intersections are recommended to be lengthened to serve as auxiliary lanes between intersections. Without reclassification the significant impact would remain unmitigated.

The seven lane Major and eight lane Major Arterial classification for segments between Ailsa Court and Piper Ranch Road are recommended for a reclassification to a six lane Primary Arterial, restricting parking and access. The impact would be less than significant. These reclassifications are recommended for consistency in lane configurations along Otay Mesa Road.

- State Route 125 southbound ramp intersection to Harvest Road: level of service “E”.

A reclassification to a six lane Primary Arterial is recommended. There are few driveways and few developed parcels along these segments so that restricting parking and access would have a minimal impact. The level of service would improve from “E” to “C”, and the significant impacts would be fully mitigated.

The County of San Diego has a six lane classification of Otay Mesa Road east of Enrico Fermi Drive. A continuous six lane Primary Arterial classification is recommended to extend to the City / County boundary to maintain consistency in lane configurations.

Airway Road

- Caliente Avenue to Heritage Road: level of service “E”.

This segment is slightly (8.6%) over the level of service “D” volumes for a four lane Major Arterial. This segment includes a bridge crossing an open space canyon so that a six lane bridge would be costly and affect the environment more than four lanes. A six lane reclassification is not recommended. However, the significant segment impact would be unmitigated.

- Heritage Road to Cactus Road: level of service “F”.

- Cactus Road to Britannia Boulevard: level of service “F”.

A reclassification to a six lane Primary Arterial is recommended beginning west of the Heritage Road intersection, so six through lanes can be provided through the intersection in the east and westbound directions, and extending to Cactus Road. The Heritage Road to Cactus Road segment significant impact would be unmitigated even with this six-lane reclassification. Added right turn lanes at intersections would enhance the segment capacity. The Cactus Road to Britannia Boulevard segment would be mitigated with a reclassification to a six lane Major Arterial.

Siempre Viva Road

- Otay Center Drive to SR-905: level of service “E”.

-SR-905 to Paseo de las Americas: level of service “F”

A reclassification from six to eight lanes is not recommended since a costly widening of the SR-905 / Siempre Viva Road interchange would be needed. The significant impact to these segments would be unmitigated.

Caliente Avenue

- Otay Mesa Road to Airway Road:

Although not at level of service “E” or “F”, these segments are recommended to be reclassified from a six lane Major Arterial to a six lane Primary Arterial, restricting access and parking adjacent to the closely spaced intersections, including the SR-905 on and off ramp intersections with Caliente Avenue.

-Airway Road to Beyer Boulevard: level of service “F”.

A reclassification from a four lane to a six lane Major Arterial is recommended. This segment extends through a future residential area so that a Primary Arterial restricting access is not recommended. The significant segment impact would be only partially mitigated.

- Beyer Boulevard to Siempre Viva Road: level of service “F”.

No reclassification is recommended since this segment extends into a future residential area that will need to be designed with collector loop streets for acceptable access, and local traffic will have additional access to Beyer Boulevard.

Heritage Road / Otay Valley Road

- Otay Valley Road between Main Street in Chula Vista and Avenida de las Vistas: level of service “F”.

A reclassification to more than the current six lane Primary Arterial would be a decision to be made by the City of Chula Vista. A wider roadway and bridge over the Otay River Valley would be costly and increase environmental impacts to the Otay River Valley and is not recommended. The significant impact to this segment would be unmitigated.

- Avenida de las Vistas to Datsun Street: level of service “F”.

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. A wider classification would be costly to construct and is not recommended. There are few developed driveways along this segment so that restricting parking and access would have minimal impacts to adjacent parcels. The significant segment impact would be only partially mitigated.

- Datsun Street to Airway Road: acceptable levels of service.

A reclassification to a six lane Primary Arterial is recommended, restricting access and parking through these closely spaced intersections, including the SR-905 on and off ramp intersections with Heritage Road.

Cactus Road

- Otay Mesa Road to Airway Road: level of service “F”.
- Airway Road to Siempre Viva Road: level of service “F”.

A reclassification to a four lane Major Arterial is recommended. A higher six lane classification is not recommended. This roadway will extend through the mixed-use village area and excessive through traffic should be discouraged. The significant segment impacts would only be partially mitigated.

Britannia Boulevard

-SR-905 to Airway Road: level of service “F”.

Britannia Boulevard has been constructed as six lanes between Otay Mesa Road and the SR-905 eastbound ramps, and five lanes between the eastbound ramps and Airway Road. The Cross-Border Facility project includes reclassifying and construction of this segment to six lanes as project mitigation. The SR-905 on and off ramp intersections are closely spaced so that parking and access should be restricted along these segments.

In addition, Britannia Boulevard will also be the designated truck route for southbound laden trucks between SR-905 and the planned truck route parallel to the border.

Therefore, a reclassification to a six lane Primary arterial is recommended for the segments between Otay Mesa Road and Airway Road. The segment between Airway Road and Siempre Viva Road is recommended as a six lane Major Arterial. Segment impacts would be mitigated south of Airway Road, but not on the segment between SR-905 and Airway Road. Additional right-turn lanes would enhance the capacity of this segment.

- Siempre Viva Road to South End: level of service “F”.

A reclassification from two to four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

La Media Road

- Birch Road to Lone Star Road: deleted with this alternative.

The City of Chula Vista is planning to remove the segment of La Media Road crossing the Otay River Valley within Chula Vista from the City of Chula Vista General Plan Circulation Element, so this segment was deleted from the Otay Mesa Community Plan traffic model street network for this alternative. The traffic volumes analyzed in this scenario were based on deleting this segment in the traffic model.

- Lone Star Road to Otay Mesa Road:

Due to the deletion of the connection of La Media Road crossing the Otay River Valley, the volumes on these segments are reduced so that a reclassification from a six lane Primary Arterial to a four lane Major Arterial is recommended.

- SR-905 to Airway Road: level of service “F”.

The addition of lanes to this currently classified six lane Primary Arterial would require a costly modification to the SR-905 / La Media Road interchange and is not recommended. The significant segment impact would be unmitigated.

- Airway Road to Siempre Viva Road: level of service “D”.

The segment south of Airway Road is recommended to be classified as a five lane Major Arterial, three southbound lanes and two northbound lanes to accommodate southbound unladen trucks on this

designated route from SR-905 to the Border Truck Road providing access to the eastern border crossing. The southbound lanes would transition to two lanes north of Siempre Viva Road.

Lone Star Road

- Piper Ranch Road to City / County Boundary: level of service 'E'.

Segments from SR-125 to the City / County Boundary are recommended to be classified as a six lane Primary Arterial to be consistent with the County of San Diego classification. A reclassification to a six lane Primary Arterial is recommended from west of the SR-125 southbound off-ramp to the City / County Boundary. The significant segment impact would be mitigated.

Aviator Road

- Heritage Road to La Media Road: level of service "F".

This segment is recommended to be added to the circulation element as a four lane Collector (with left turn lane). Future volumes would be accommodated without a significant segment impact.

Dennerly Road

- Black Coral Lane to East End: level of service "F".

A reclassification is not recommended. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Avenida de las Vistas

- Otay Valley Road to Vista Santo Domingo: level of service “E”.
- Vista Santo Domingo to Dennerly Road: level of service “F”.

A reclassification is not recommended. This street is fully constructed and has adjacent single family residences. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impacts would be unmitigated.

Del Sol Boulevard

- Surf Crest Drive to Riviera Pointe: level of service “F”.

This segment will pass through environmentally sensitive lands and is on a slope. Retaining the two lane Collector (no fronting property) classification would minimize impacts to the MSCP land and discourage speeding and through traffic not destined to the adjacent residential developments.

- Riviera Pointe to Dennerly Road: level of service “F”.

This segment is fully constructed and surrounded by environmentally sensitive land and single family development. A reclassification to four lanes is not recommended. The significant segment impact would be unmitigated.

Old Otay Mesa Road

- Crescent Bay Drive to Beyer Boulevard: level of service “F”.

This segment is situated on a steep, rocky hillside that would be costly to widen. Therefore, no reclassification is recommended. The significant segment impact would remain unmitigated.

Corporate Center Drive

- Progressive Avenue to Innovative Drive: level of service “E”.

This segment is fully constructed with adjacent developments, as a two lane industrial Collector (without left turn lane). A reclassification as a two lane Collector (with left turn lane) is recommended. The significant impact would be mitigated with restriping for a central left turn lane.

Sanyo Avenue

- Otay Mesa Road to Airway Road: level of service “F”.

This segment is constructed as a four lane Collector (without left turn lane) and is to be added to the circulation plan. Widening to a four lane Major Arterial width would adversely affect adjacent development, but minor widening to accommodate a central left turn lane and a classification as a four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated with this widening.

Paseo de las Americas

- Airway Road to Siempre Viva Road: level of service “F”.
- Siempre Viva Road to Marconi Drive: level of service “F”.

These segments are currently classified as a two lane Collector but are constructed fully with four lanes. A reclassification to four lane Collector (with left turn lane) is recommended. This reclassification would mitigate the significant segment impacts.

Marconi Drive

- Paseo de las Americas to Enrico Fermi Drive: level of service “E”.

This segment is fully constructed as a two lane industrial Collector, and is wide enough to be striped with two lanes and a continuous central left turn lane. The significant segment impact would be mitigated with the reclassification to a two lane Collector (with left turn lane).

Otay Center Drive

- Harvest Road to Siempre Viva Road: level of service “F”.

This segment is constructed as a four lane Collector (without left turn lane). A reclassification to a four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

St. Andrews Avenue

- Otay Mesa Center Road to La Media Road: level of service “F”.

Currently classified as a two lane Collector, this segment is constructed as a four lane Collector. A reclassification to a four lane Collector (with left turn lane) is recommended. The significant impact would be mitigated.

Gailes Boulevard

-Otay Mesa Road to St. Andrews Avenue: level of service “F”.

This street is constructed with four lanes and a raised median. A reclassification from a two lane Collector to four lane Collector (without left turn lanes) is recommended. The significant segment impact would be mitigated.

Camino Maquiladora

-Heritage Road to Pacific Rim Court: level of service “F”

-Pacific Rim Court to Cactus Road: level of service “E”.

These segments serve adjacent industrial uses but have diverted traffic from Otay Mesa Road. These segments are not mean to be through traffic by-pass routes, and are not recommended for reclassification. The significant segment impacts would be unmitigated.

Progressive Avenue

-Corporate Center Drive to Innovative Drive: level of service “F”.

This segment is constructed as a two lane industrial Collector and serves adjacent industrial uses, but has diverted traffic from Heritage Road. This segment is not meant as a through traffic by-pass route and is not recommended for reclassification. The significant impact would be unmitigated.

Otay Mesa Center Road

-Otay Mesa Road to St. Andrews Avenue: levels of service “F”.

This segment is classified as a two lane Collector, but is constructed with four lanes. A reclassification to a four lane Collector (with left turn lane) mitigates the significant segment impact.

Datsun Street

- Innovative Drive to Heritage Road: level of service “F”.

This segment is planned to serve the adjacent industrial uses, but has high volumes due to traffic diverted from Heritage Road. This segment is not meant to be a through traffic bypass route. A classification as a four lane Collector (with left turn lane) is recommended, rather than a four lane Major Arterial. The significant segment impact would be unmitigated.

Avenida Costa Azul

-Otay Mesa Road to South End: level of service “F”.

Add to circulation plan as a four lane Collector (with left turn lane). The significant segment impact would be mitigated by this classification.

Exposition Way / Vista Santo Domingo

-Avenida de las Vistas to Corporate Center Drive: level of service “F”.

This segment has high volumes due to diverted traffic from Otay Valley Road. Vista Santo Domingo is constructed as a two lane Collector within a residential area and is not meant to be a by-pass route for through traffic so that retaining this classification would discourage speeding and through traffic not destined for the adjacent residential neighborhood. A reclassification is not recommended.

7.3 Freeway Levels of Service

Table 7-2 lists freeway segments evaluated for the 3B Without La Media Road scenario.

Segments of Interstate 805 and State Route 905 are projected to be significantly impacted by Otay Mesa Community Plan and regional cumulative traffic.

Impacts to Interstate 805 between State Route 905 and Main Street would remain significant and unmitigated without the assumption of High Occupancy (HOV) lanes installed, and a northbound auxiliary lane installed with I-805 / SR-905 interchange improvements.

However, the adopted SANDAG 2050 Regional Transportation Plan includes two managed lanes in each direction on I-805 north of SR-905. With the addition of these managed lanes, peak hour levels of service would be at “D” on I-805 segments between SR-905 and Main Street.

State Route 905 is assumed with six lanes. Impacts would be significant and unmitigated between Picador Boulevard and Britannia Boulevard. State Route 905 has been designed so that median HOV lanes could be installed in the future, but are not currently planned or funded by Caltrans.

TABLE 7-2

**Scenario 3B Freeway Segment Levels of Service
Without La Media Road**

Segment		Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split(5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	128,500	0.08	0.6	0.90	6,853	1.05	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,550	221,000	0.08	0.6	0.90	11,787	1.38	F2
	Caliente Ave. to Heritage Rd.	3	7,050	196,000	0.08	0.6	0.90	10,453	1.48	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	173,000	0.08	0.6	0.90	9,227	1.31	F1
	Britannia Blvd. to La Media Rd.	3	7,050	154,000	0.08	0.6	0.90	8,213	1.16	F0
	La Media Rd. to SR-125	3	7,050	103,500	0.08	0.6	0.90	5,520	0.78	C
	SR-125 to Siempre Viva Rd.	3	7,050	99,000	0.08	0.6	0.90	5,280	0.75	C
	Siempre Viva Rd. to Border	3	7,050	64,500	0.08	0.6	0.90	3,440	0.49	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	248,000	0.08	0.6	0.90	13,227	1.18	F0
	Palm Ave. to SR-905	4+AUX	11,200	222,000	0.08	0.6	0.90	11,840	1.06	F0
	SR-905 to I-5	4	9,400	122,000	0.08	0.6	0.90	6,507	0.69	C
	I-5 to Border	6	14,100	135,500	0.08	0.6	0.90	7,227	0.51	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	155,500	0.08	0.6	0.90	8,293	0.88	D
	Lone Star Rd. to SR-905	4 (Toll)	9,400	115,500	0.08	0.6	0.90	6,160	0.66	C
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	47,000	0.08	0.6	0.90	2,507	0.53	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	24,500	0.08	0.6	0.90	1,307	0.28	A
	Siempre Viva Rd. to Border	2	4,700	39,500	0.08	0.6	0.90	2,107	0.45	B

Legend

Cap = Capacity of Segment

Mainlane Cap. @ 2,350 VPHPL

Auxillary Lane Cap. @ 1,800 VPHPL

HOV Lane Cap. @ 1,600 VPHPL

Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

F

= Shading indicates a significant impact.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (7-26-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source: Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

TABLE 7-2-A

**Scenario 3B Without La Media Road Freeway Segment Levels of Service
(With HOV Lanes Added To LOS F Segments)**

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Hour % (5)	Direction Split (5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	128,500	0.08	0.6	0.90	6,853	0.83	D
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	221,000	0.08	0.6	0.90	11,787	1.13	F0
	Caliente Ave. to Heritage Rd.	+H	3	8,650	196,000	0.08	0.6	0.90	10,453	1.18	F0
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	173,000	0.08	0.6	0.90	9,227	1.04	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	154,000	0.08	0.6	0.90	8,213	.92	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	248,000	0.08	0.6	0.90	13,227	0.92	D
	Palm Ave. to SR-905	+2H	4+AUX	14,400	222,000	0.08	0.6	0.90	11,840	0.82	D

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL


ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

 = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (07-26-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source: Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service between I-805 and Britannia Boulevard. **Table 7-2-A** shows freeway levels of service after HOV lanes are added to segments at level of service “F”.

7.4 Intersection Levels of Service

Table 7-3 shows the 3B Without La Media Road scenario intersection levels of service without and with recommended mitigation.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. Lane configurations with mitigation identified are included in the Executive Summary and **Appendix D**. Also included in Appendix D are peak hour volumes at each intersection, intersection levels of service worksheets, and descriptions of how peak hour volumes were determined.

There are 29 locations with existing traffic signals, 26 of which are recommended for modification. All other intersections are also recommended for signalization. A listing of existing traffic signals and volume warrants for future intersections are also included in Appendix D.

TABLE 7-3

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

Intersection		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	48.9	D	51.3	D	24.8	C	35.7	D
2	Palm Ave. / I-805 NB Ramps	116.1	F	122.6	F	4.6	A	5.5	A
3	Palm Ave. / Dennery Rd.	33.5	C	67.2	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	263.5	F	146.0	F	205.9	F	87.2	F
5	Caliente Ave. / SR-905 WB Ramps	83.1	F	43.2	(1) D	34.0	(1) C	34.0	(1) C
6	Caliente Ave. / SR-905 EB Ramps	165.7	F	150.5	F	55.0	E	70.2	E
7	Caliente Ave. / Airway Rd.	228.5	F	223.0	F	143.0	F	200.5	F
8	Caliente Ave. / Beyer Blvd.	252.0	F	429.8	F	212.7	F	122.4	F
9	Otay Mesa Rd. / Heritage Rd.	367.5	F	257.4	F	272.0	F	161.2	F
10	Heritage Rd. / SR-905 WB Ramps	69.9	E	81.1	F	15.9	(1) B	28.4	(1) C
11	Heritage Rd. / SR-905 EB Ramps	113.0	F	86.4	F	39.5	(1) D	25.5	(1) C
12	Heritage Rd. / Airway Rd.	162.7	F	402.8	F	144.5	F	88.3	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	437.9	F	290.5	F	139.6	F	199.7	F
15	Airway Rd. / Cactus Rd.	361.5	F	437.7	F	188.6	F	306.2	F
16	Siempre Viva Rd. / Cactus Rd.	48.7	D	127.7	F	47.6	D	117.3	F
17	Otay Mesa Rd. / Britannia Blvd.	108.5	F	117.2	F	63.1	E	47.5	D
18	Britannia Blvd. / SR-905 WB Ramps	240.5	F	577.4	F	65.0	E	547.1	F
19	Britannia Blvd. / SR-905 EB Ramps	353.3	F	235.1	F	305.9	F	67.1	E
20	Britannia Blvd. / Airway Rd.	618.2	F	615.8	F	184.9	F	241.1	F
21	Siempre Viva Rd. / Britannia Blvd.	363.3	F	362.8	F	177.5	F	143.2	F
22	Otay Mesa Rd. / La Media Rd.	457.1	F	443.8	F	131.9	F	126.2	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

TABLE 7-3 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

Intersection	Without Mitigation				With Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23 La Media Rd. / SR-905 WB Ramps	266.1	F	227.2	F	129.8	F	112.7	F
24 La Media Rd. / SR-905 EB Ramps	234.7	F	84.7	F	162.2	F	48.5	(1) D
25 La Media Rd. / Airway Rd.	496.6	F	507.9	F	182.5	F	212.5	F
26 La Media Rd. / Siempre Viva Rd.	244.0	F	112.1	F	81.6	F	37.1	D
27 La Media Rd. / Lone Star Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28 Lone Star Rd. / SR-125 SB Off Ramp	63.6	E	96.8	F	-	-	-	-
29 Lone Star Rd. / SR-125 NB On Ramp	2.1	(1) A	147.8	F	-	-	-	-
30 Lone Star Rd. / Piper Ranch Rd.	8.1	A	9.3	(1) A	-	-	-	-
31 Otay Mesa Rd. / Piper Ranch Rd.	129.2	F	166.2	F	44.6	D	47.5	D
32 Otay Mesa Rd. / SR-125 SB Off Ramp	82.9	F	13.0	(1) B	30.4	C	11.0	(1) B
33 Otay Mesa Rd. / SR-125 NB On Ramp	4.8	A	22.0	C	-	-	-	-
34 Otay Mesa Rd. / Harvest Rd.	37.9	D	133.7	F	11.8	B	38.9	(1) D
35 Siempre Viva Rd. / Otay Center Dr.	276.0	F	213.0	F	83.0	F	85.4	F
36 Siempre Viva Rd. / SR-905 SB to EB Ramp	29.0	(1) C	146.2	F	-	-	-	-
36A Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 2,641	F	(2) 205.7	F	382.0	F	16.3	(1) B
37 Siempre Viva Rd. / SR-905 NB Ramps	47.2	(1) D	262.7	F	39.3	(1) D	250.4	F
38 Siempre Viva Rd. / Paseo de las Americas	188.8	F	367.1	F	78.8	E	159.5	F
39 Dennery Rd. / Del Sol Blvd.	49.3	D	49.4	D	-	-	-	-
40 Ocean View Hills Pkwy. / Del Sol Blvd.	67.8	E	67.3	E	50.5	D	53.3	D
41 Ocean View Hills Pkwy. / Street A	48.2	D	57.9	E	35.5	D	34.6	C
42 Old Otay Mesa Rd. / Beyer Blvd.	381.2	F	396.5	F	194.3	F	181.8	F
43 Otay Mesa Rd. / Corporate Center Dr.	119.3	F	184.3	F	78.6	E	140.6	F
44 Otay Mesa Rd. / Innovative Dr.	114.4	F	108.9	F	113.7	F	89.8	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

(2) = Unsignalized: SB to WB right turn at LOS F (AM and PM Peak Hours)

F = Shading indicates a significant impact.

TABLE 7-3 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection		CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	116.7	F	13.8	B	42.5	D	13.5	B
46	Harvest Rd. / Siempre Viva Rd.	76.6	E	69.2	E	28.7	C	51.5	D
47	Otay Mesa Rd. / Sanyo Ave.	263.3	F	276.6	F	106.7	F	89.0	F
48	Airway Rd. / Sanyo Ave.	225.6	F	229.8	F	49.7	D	38.6	D
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 988.3	F	(3) 244.6	F	8.9	A	13.0	B
50	Paseo de las Americas / Marconi Dr.	(4) 869.6	F	(4) 108.0	F	11.5	B	13.4	B
51	Heritage Rd. / Otay Valley Rd.	516.4	F	837.9	F	178.7	F	382.7	F
52	Aviator Rd. / La Media Rd.	105.1	F	38.0	D	27.7	C	18.3	B
53	Otay Valley Rd. / Avenida De Las Vistas	764.4	F	298.6	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay volumes higher than two times the LOS E delay of 80.0 seconds.

Legend

CD = Control Delay

LOS = Level of Service

(3) Unsignalized: eastbound left turn at LOS F (AM Peak Hour);
eastbound left and right turns at LOS F (PM Peak Hour).

(4) Unsignalized: westbound left turn at LOS F (AM and PM Peak Hours);
westbound right turn at LOS F (PM Peak Hour).

F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
<i>Source: 2000 Highway Capacity Manual</i>	

Of the 52 intersections evaluated, 42 intersections are expected to be at levels of service “E” or “F” during the AM peak hour and 44 during the PM peak hour. With mitigation, 28 intersections would remain to operate unacceptably in the AM peak hour and 29 intersections would remain to operate unacceptably in the PM peak hour. Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a level of service “F”, as footnoted in this table. **Table 7-4** shows lane configurations at each intersection and also shows lanes to be added after mitigation.

Intersection peak hour volumes, lane configurations with mitigation, and level of service worksheets are included in **Appendix D**.

The SR-905 interchanges at Caliente Avenue and at La Media Road are recommended for major improvements for all alternatives. The Caltrans designs of these interchanges are based on forecasts of future traffic from the build out of only approximately fifty percent of Otay Mesa land uses. The Heritage Road interchange currently does not have a final, funded design, so that the lane configurations at the ramp intersections included in this report should be incorporated into the final design.

Provided below is a summary of mitigation recommended at the interchanges and major intersections. Some intersection impacts are not proposed to be fully mitigated, usually because it would require excessively wide intersections and turning lanes and non-standard intersection configurations.

#1 & #2. I-805 Southbound and Northbound Ramps / Palm Avenue – The Otay Mesa P.F.F.P includes a bridge widening project at this interchange. The preliminary design includes a third through lane in each direction at the northbound ramps, an additional westbound right turn lane (total of two), northbound off-ramp widening for an additional lane (total of three), southbound off-ramp widening for an additional lane (total of four), and the addition of a fourth eastbound lane and a loop on-ramp in the southeast quadrant.

TABLE 7-4

Buildout 3B Without La Media Road Intersection Mitigation

Intersection	Without Mitigation												With Mitigation											
	NB			SB			EB			WB			NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
1 Palm Ave. / I-805 SB Ramps				1	1*	1		2	1	2	2				1	1*	2		2	1	2	2		
2 Palm Ave. / I-805 NB Ramps	S	1*	1				2	2			2	1	1	1*	1				3	1		3	2	
3 Palm Ave. / Dennerly Rd.	3	1	S	2	2	1	2	3	1	2	3	1												
4 Otay Mesa Rd. / Caliente Ave.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	S	2	3	1	2	3	1
5 Caliente Ave. / SR-905 WB Ramps	1	3			3	S				S	1	1	2	3		3	1					S	1	1
6 Caliente Ave. / SR-905 EB Ramps		3	S	1	3		1	1*	S				3	1	2	3		1	1*	1				
7 Caliente Ave. / Airway Rd.	2	3	S	2	3	S	2	2	S	2	2	1	2	3	1	2	3	S	2	2	1	2	2	1
8 Caliente Ave. / Beyer Blvd.	2	2	S	2	3	S	2	2	S	1	1	1	2	2	S	2	2	2	2	2	1	1	1	1
9 Otay Mesa Rd. / Heritage Rd.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2
10 Heritage Rd. / SR-905 WB Ramps		3	S	2	3					S		2	3	2	2	3						S		2
11 Heritage Rd. / SR-905 EB Ramps		3	S	2	3					2		S	3	1	2	3						2		1
12 Heritage Rd. / Airway Rd.				2		1	2	3		2	3	S			2		1	2	3			3	2	
13 Heritage Rd. / Siempre Viva Rd.																								
14 Otay Mesa Rd. / Cactus Rd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	2	2	3	1
15 Airway Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2*	1	2	3*	1	2	3	2
16 Siempre Viva Rd. / Cactus Rd.		2	S	2	2					2		2	2	1	2	2						2		2
17 Otay Mesa Rd. / Britannia Blvd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	1	2	3	1
18 Britannia Blvd. / SR-905 WB Ramps	2	3			3	S				1	1	1	2	3		3*	1					1	1*	1
19 Britannia Blvd. / SR-905 EB Ramps		3	S	2	3		S	1	2				3	2	2	3		S	1	2				
20 Britannia Blvd. / Airway Rd.	2	3	S	2	3	S	2	3	S	2	2	S	2	3	1	2	3	2	2	3	1	2	2	2
21 Siempre Viva Rd. / Britannia Blvd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	2	2	3	1	2	3	2
22 Otay Mesa Rd. / La Media Rd.	2	3	S	2	2	S	2	3	S	2	3	S	2	3	2	2	2	2	2	3	2	2	3	2

Legend

L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

* **Notes:** #1 - SB through is shared LTR without mitigation; shared LT with mitigation.

#2 - NB through is shared LTR.

#5 - SB is 2T-TR-R without mitigation.

#6 - EB through is shared LTR without mitigation; shared LT with mitigation.

#14 - NB through is shared TR.

#15 - SB through is shared TR.

#15 - EB through is shared TR.

#17 - NB through is shared TR.

#18 - 1 SB right turn lane added, 3rd lane restriped for optional TR; WB middle lane restriped for LTR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 7-4 (Continued)

Buildout 3B Without La Media Road Intersection Mitigation

Intersection	Without Mitigation												With Mitigation											
	NB			SB			EB			WB			NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
23 La Media Rd. / SR-905 WB Ramps	2	2	1		3	1	S	1	1	1	1*	1	2	3	1		3	1	1		1	1	1*	1
24 La Media Rd. / SR-905 EB Ramps	2	3			2	1	2		2				2	3			3	1	2		2			
25 La Media Rd. / Airway Rd.	2	2	S	2	3	S	2	2	S	2	2	S	2	2	1	2	3	2	2	2	1	2	2	2
26 La Media Rd. / Siempre Viva Rd.				2	2	S	2	3				3	S			2	1*	2*	2	3			3	2
27 La Media Rd. / Lone Star Rd.																								
28 Lone Star Rd. / SR-125 SB Off Ramp				2		2		3				3												
29 Lone Star Rd. / SR-125 NB On Ramp							2	3				3	2											
30 Lone Star Rd. / Piper Ranch Rd.	2		1					3	S	2	3													
31 Otay Mesa Rd. / Piper Ranch Rd.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	2	1	2	2	3	1	2	3	1
32 Otay Mesa Rd. / SR-125 SB Off Ramp				2		1		3				3				1	1*	1		3			3	
33 Otay Mesa Rd. / SR-125 NB On Ramp							2	3				3	2											
34 Otay Mesa Rd. / Harvest Rd.	1	1	S	1	1	S	1	3	S	1	3	S	2	1	S	1	1	S	1	3	1	1	3	S
35 Siempre Viva Rd. / Otay Center Dr.	1	1	S	1	2	S	1	3	S	1	3	S	1	1	1	2	1	1	2	3	1	2	3	1
36 Siempre Viva Rd. / SR-905 SB to EB Ramp			2					3	S	2	3													
36A Siempre Viva Rd. / SR-905 SB to WB Ramp						1						3						2					3	
37 Siempre Viva Rd. / SR-905 NB Ramps	S	1	2				2	3				3	1	S	1	2			2	3			3	2
38 Siempre Viva Rd. / Paseo de las Americas	1	2	S	1	2	S	1	3	1	1	3	S	1	1*	1*	1	1	2	2	3	1	1	3	1
39 Dennerly Rd. / Del Sol Blvd.				1		1	1	2				2	S											
40 Ocean View Hills Pkwy. / Del Sol Blvd.	2	3	S	1	2	S	1	1	1	1	1	S	2	3	S	1	2	1	1*	1*	1	1	1	S
41 Ocean View Hills Pkwy. / Street A	1	1	1	1	1	S	1	3	S	1	3	S	2	1	1	1	1	S	1	3	1	1	3	S
42 Old Otay Mesa Rd. / Beyer Blvd.	1	1	S	1	1	S	2	2	1	2	2	S	1	1	1	1	1	1	2	2	1	2	2	S
43 Otay Mesa Rd. / Corporate Center Dr.	2	1	S	1	1*	1	2	3	S	2	3	1	2	1	S	2	1*	1	2	3	1	2	3	1
44 Otay Mesa Rd. / Innovative Dr.	1	1	S	1	1*	1	2	3	S	2	3	1	1	1	S	2	1*	1	2	3	S	2	3	1

Legend

L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

***Notes:**

#23 - WB middle lane is shared LT.
#26 - SB lanes restriped for 1T-2R lanes.
#27 - WB lanes restriped for 2R lanes.
#32 - SB middle lane is striped for shared LR.
#38 - NB lanes restriped for L-LT-R.
#40 - EB lanes restriped for L-LT-R.
#43 - SB lanes are 2L-TR-R.
#44 - SB lanes are 2L-TR-R.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 7-4 (Continued)

Buildout 3B Without La Media Road Intersection Mitigation

Intersection	Without Mitigation												With Mitigation											
	NB			SB			EB			WB			NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
45 Harvest Rd. / Airway Rd.	2		1					2	S	2	2		2		1				2	1	2	2		
46 Harvest Rd. / Siempre Viva Rd.	1	2	S	1	2	S	2	3	S	2	3	S	1	2	S	2	2	1	2	3	S	2	3	1
47 Otay Mesa Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	1	1	2	3	2	2	3	1	
48 Airway Rd. / Sanyo Ave.	1	2	S	1	2	S	2	2	S	2	2	S	2	2	1	2	2	2	2	2	2	2	2	1
49 Paseo de las Americas / Heinrich Hertz Dr.	1	2			2	S	1		1				2	2		2	S	1		1				
50 Paseo de las Americas / Marconi Dr.		2	S	1	2					1		1		2	S	2	2					1		1
51 Heritage Rd. / Otay Valley Rd.	2	3	S	2	3	S	1	2	S	1	2	S	2	3	1	2	3	2	2	2	1	2	2	1
52 Aviator Rd. / La Media Rd.	2	2			2	S	2		1				2	2		2	1	2		1				
53 Otay Valley Rd. / Avenida De Las Vistas	1	3	S	1	3	S	1	1	S	1	1	1												

Legend

L = left turn lanes

T = through lanes

R = right turn lanes

S = shared lane

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

#4. Caliente Avenue / Otay Mesa Road – At this intersection of two six-lane Primary Arterials, a separate right turn only lane in the northbound direction is recommended. Although the northbound right turn volumes are expected to be high enough to warrant dual right turns, this intersection is a pedestrian route to nearby San Ysidro High School. In the interest of school pedestrian safety and convenience, dual right turn lanes are not recommended.

#5. Caliente Avenue / SR-905 Westbound Ramps – Overcrossing widening to accommodate northbound dual left turn lanes is recommended. Additionally, a single southbound right turn only lane is recommended. Caliente Avenue is a school pedestrian route to the San Ysidro High School. Although southbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended. Vehicle queues from the upstream intersections are expected to extend through this intersection so that AM and PM peak hour levels of service will be at LOS “F”.

#6. Caliente Avenue / SR-905 Eastbound Ramps - Overcrossing widening to accommodate dual northbound left turn lanes at the SR-905 westbound ramps also should extend through this intersection, accommodating dual southbound left-turn lanes. A separate northbound right turn lane and ramp widening for an additional eastbound right turn lane are recommended. Although the eastbound right turn lanes are expected to be high enough for dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#7. Caliente Avenue at Airway Road - Separate right turn only lanes are recommended in the eastbound, northbound, and westbound directions. Although the northbound and westbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#8. Caliente Avenue at Beyer Boulevard - Dual right turn lanes southbound to westbound are recommended. A separate eastbound right turn lane is recommended.

#9. Heritage Road / Otay Mesa Road - Separate right turn only lanes are recommended in the northbound and southbound directions. Existing right turn lanes are in place eastbound and westbound. A second westbound right turn lane is recommended.

#10. Heritage Road / SR-905 Westbound Ramps - Two right turn only lanes are recommended in the northbound direction onto the westbound on-ramp. The vehicle queue from an upstream intersection extends through this intersection so that the AM and PM peak hour level of service will be at LOS “F”.

#11. Heritage Road / SR-905 Eastbound Ramps - A separate right turn lane in the northbound direction to the eastbound on-ramp, plus an additional lane in the westbound direction on the eastbound off-ramp are recommended. The vehicle queue from an upstream intersection extends through this intersection so that the AM and PM peak hour level of service will be at LOS “F”.

#12. Heritage Road / Airway Road – Dual right turn lanes are recommended in the westbound direction.

#14. Cactus Road / Otay Mesa Road - Dual right turn lanes in the eastbound direction, and one in the westbound direction are recommended.

#15. Cactus Road / Airway Road - Dual right turn lanes in the westbound direction, and single right turn lanes are recommended in the south, north, and eastbound directions. A shared through / right turn lane is recommended southbound and eastbound.

#16. Cactus Road / Siempre Viva Road - Dual right turn lanes in the westbound direction and a single right turn lane are recommended in the northbound direction.

#17. Britannia Boulevard / Otay Mesa Road - A single right turn only lane in the eastbound and westbound directions are recommended.

#18. Britannia Boulevard / SR-905 Westbound Ramps - A single southbound right turn lane, and also restriping the third southbound through lane as an optional through / right turn are recommended. The middle lane in the westbound direction is recommended to be restriped for a shared left / through / right turn movement.

#19. Britannia Boulevard / SR-905 Eastbound Ramps - Dual right turn lanes northbound are recommended.

#20. Britannia Boulevard / Airway Road - Dual right turn lanes in the south and westbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#21. Britannia Boulevard / Siempre viva Road - Dual right turn lanes in the west and southbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#22. La Media Road / Otay Mesa Road – Dual right turn lanes are recommended at all approaches.

#23. La Media Road / SR-905 Westbound Ramps - It is recommended that the eastbound through movement be eliminated so that the northbound right turn to the SR-905 westbound on-ramp can be a continuous movement, without a conflicting movement at the traffic signal. Only a pedestrian signal would cause this traffic to stop. Additionally a third northbound through lane is recommended. These recommended improvements would require widening in the northbound direction along La Media Road.

#24. La Media Road / SR-905 Eastbound Ramps - The addition of a third southbound through lane is recommended. This improvement would require widening La Media Road in the southbound direction.

#25. La Media Road / Airway Road - The addition of dual right turn lanes westbound and southbound, and single right turn lanes eastbound and northbound are recommended.

#26. La Media Road / Siempre Viva Road - The addition of dual right turn lanes westbound, and one right turn lane southbound are recommended. The southbound lanes should be striped for two left turn lanes / one through / two right turn lanes. The southbound through lane will be restricted to unladen trucks destined to the Border Truck Road.

#31. Piper Ranch Road / Otay Mesa Road – Single right turn lanes in the east, west, and northbound directions are recommended. Southbound, two right turn lanes are recommended. Southbound lanes should be striped for two left / one through / two right turn lanes.

#32. SR-125 Southbound Off-Ramp / Otay Mesa Road – No additional lanes are recommended, but restriping the southbound middle lane for optional left-right turns is recommended. The vehicle queue from the upstream northbound on-ramp will extend through this intersection during the AM and PM peak hours so that the peak hour levels of service will be at LOS “F”.

#34. Harvest Road / Otay Mesa Road – An additional eastbound right turn lane is recommended. An additional northbound left turn lane is also recommended.

#35. Otay Center Drive / Siempre Viva Road - Added lanes for right turns are recommended at all approaches. Dual left turn lanes are recommended east, west, and southbound.

#36 – 36A. SR-905 Southbound Ramps / Siempre Viva Road – The SR-905 southbound off-ramp to westbound Siempre Viva Road is recommended to be signalized, and widened for an additional southbound right turn lane.

#37. SR-905 Northbound Ramps / Siempre Viva Road – A second westbound right turn lane is recommended.

#38. Paseo de las Americas / Siempre Viva Road - Added westbound and southbound right turns are recommended, plus an eastbound left turn lane. The northbound lanes should be restriped for one left, one shared left /through, one right turn lane. The southbound lanes should be restriped for one left / one through / two right turn lanes.

#40. Ocean View Hills Parkway / Del Sol Boulevard - One added southbound right turn lane is recommended. The eastbound through lane should be restriped for optional left turns / through.

#41. Ocean View Hills Parkway / Street "A" - An eastbound single right turn lane and an added northbound left turn lane are recommended.

#42. Old Otay Mesa Road / Beyer Boulevard - Northbound and southbound right turn lanes are recommended.

#43. Otay Mesa Road / Corporate Center Drive - Northbound and southbound added left turn lanes, and a separate eastbound right turn lane are recommended. The southbound through lane should be striped as a shared through / right turn lane.

#44. Otay Mesa Road / Innovative Drive - A second southbound left turn lane is recommended. The southbound through lane should be striped as a shared through / right turn lane.

#45. Airway Road / Harvest Road - An eastbound right turn lane is recommended.

#46. Harvest Road / Siempre viva Road - Separate right turn lanes are recommended westbound and southbound. An additional southbound left turn lane is recommended.

#47. Otay Mesa Road / Sanyo Avenue - Eastbound dual right turn lanes, and single right turn lanes northbound and westbound are recommended. Restriping northbound lanes for dual left turns plus one through lane is recommended.

#48. Airway Road / Sanyo Avenue - Dual right turn lanes in the eastbound and southbound directions are recommended. Single right turn lanes northbound and westbound are recommended. Northbound and southbound added lanes for dual left turns are recommended.

#49. Paseo de las Americas / Heinrich Hertz Drive - The installation of a traffic signal and widening for an added northbound left turn lane are recommended.

#50. Paseo de las Americas / Marconi Drive - The installation of a traffic signal and adding a southbound left turn lane are recommended.

#51. Heritage Road / Otay Valley Road - Dual right turn lanes southbound, and single right turn lanes at the other approaches are recommended. East and westbound dual left turn lanes are recommended.

#52. La Media Road / Aviator Road - A southbound right turn lane is recommended.

7.5 Ramp Meter Operations

Table 7-5 shows buildout ramp meter operations at all freeway on-ramps within the study area.

The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. Of the 28 peak hour ramp meters that were evaluated during the AM and PM peak hours, ramp meter delays above 15 minutes would occur at five locations during the AM peak hour and at eleven locations during the PM peak hour.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service “E” or “F”. The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

The freeway on-ramp lengths were estimated using preliminary design or aerial photos as included in Appendix D. The freeway on-ramps evaluated would have ramp lengths from 650 feet to 1,200 feet. Assuming two lanes at the ramp meters, seven locations would have queues exceeding the ramp storage during the AM peak hour and at eleven locations during the PM peak hour.

There are no performance criteria regarding excessive queues in the regional CMP guidelines. However, the guidelines state the following:

TABLE 7-5

Buildout Alternate 3B Without La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate*	Excess Demand	Delay (Min)	Queue (Feet)
AM	I-805 / Palm Avenue Northbound (From Westbound)	1,280	960	320	20.0	8,000 (E)
PM	I-805 / Palm Avenue Northbound (From Westbound)	1,380	960	420	26.3	10,500 (E)
AM	I-805 / Palm Avenue Northbound (From Eastbound)	655	960	None	None	None
PM	I-805 / Palm Avenue Northbound (From Eastbound)	540	960	None	None	None
AM	I-805 / Palm Avenue Southbound	455	960	None	None	None
PM	I-805 / Palm Avenue Southbound	645	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate*	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Caliente Avenue Westbound	1,860	960	900	56.3	22,500 (E)
PM	SR-905 / Caliente Avenue Westbound	1,550	960	590	36.9	14,750(E)
AM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None
PM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate*	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Heritage Road Westbound	1,135	960	175	10.9	4,375 (E)
PM	SR-905 / Heritage Road Westbound	2,550	960	1,590	99.4	39,750 (E)
AM	SR-905 / Heritage Road Eastbound	360	960	None	None	None
PM	SR-905 / Heritage Road Eastbound	800	960	None	None	None

*= Most restrictive meter rate used, per Caltrans.

** = Total hourly volume entering from both directions.

(E) = Exceeds ramp storage length.

TABLE 7-5

Buildout Alternate 3B Without La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Britannia Blvd. Westbound	1,350	960	390	24.4	9,750 (E)
PM	SR-905 / Britannia Blvd. Westbound	3,355	960	2,395	149.1	59,875 (E)
AM	SR-905 / Britannia Blvd. Eastbound	710	960	None	None	None
PM	SR-905 / Britannia Blvd. Eastbound	1,400	960	440	27.5	11,000 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / La Media Road Westbound	2,050	960	1,090	68.1	27,250 (E)
PM	SR-905 / La Media Road Westbound	3,025	960	2,065	129.0	51,625 (E)
AM	SR-905 / La Media Road Eastbound	1,000	960	40	2.5	1,000
PM	SR-905 / La Media Road Eastbound	1,950	960	990	61.8	24,750 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Siempre Viva Rd. Northbound	1,185	960	225	14.1	5,625 (E)
PM	SR-905 / Siempre Viva Rd. Northbound	3,510	960	2,550	159.4	63,750 (E)
AM	SR-905 / Siempre Viva Rd. Southbound	750	960	None	None	None
PM	SR-905 / Siempre Viva Rd. Southbound	1,670	960	710	44.4	17,750 (E)

*= Most restrictive meter rate used, per Caltrans.

** = Total hourly volume entering from both directions.

(E) = Exceeds ramp storage length.

TABLE 7-5

Buildout Alternate 3B Without La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Otay Mesa Rd. Northbound	1,680	960	720	45.0	24,000 (E)
PM	SR-125 / Otay Mesa Rd. Northbound	2,455	960	1,495	93.4	37,375(E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Lone Star Rd. Northbound	850	960	None	None	None
PM	SR-125 / Lone Star Rd. Northbound	3,615	960	2,655	166.0	66,375 (E)

*=Most restrictive meter rate used, per Caltrans.

** = Total hourly volume entering from both directions.

Excess Demand X 60MIN = Delay (Minutes)

Meter Rate

(E) = Exceeds ramp storage length.

Note: Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available, or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving traffic at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, use another freeway, or stay on surface streets.

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7.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the interchange ramps within the study area, and queue lengths without intersection mitigation are shown in **Table 7-6**, while **Table 7-7** shows queue lengths with mitigation.

This queue analysis was provided primarily to provide an indication of locations that might need queue storage enhancements such as extending right or left turn storage lengths, if feasible during design, and to ensure that any with queues exceeding standard turn pocket lengths was not reported as operating acceptably.

Of the 158 queues evaluated without intersection mitigation, during AM and PM peak hours, 80 are expected to be of excess length for the vehicle storage available between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 188 queues were evaluated and 63 are expected to be of excess length, extending through the adjacent intersection.

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	200	3,325	-	450	None	2,875	-
Caliente Ave. / SR-905 WB Ramps	-	1,105	-	450	-	655	-	2,650	1,623	-	450	2,200	1,173	-
Caliente Ave. / SR-905 EB Ramps	-	120	480	450	-	None	45	-	1,480	-	300	-	1,180	-
Caliente Ave. / Airway Rd.	-	350	1,573	300	-	50	1,273	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	338	1,928	-	750	None	1,178	-
Heritage Rd. / SR-905 WB Ramps	-	33	225	750	-	None	None	-	2,143	-	750	-	1,393	-
Heritage Rd. / SR-905 EB Ramps	-	143	130	750	-	None	None	-	2,175	-	750	-	1,425	-
Heritage Rd. / Airway Rd.	245	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	665	990	1,085	900	None	90	185
Britannia Blvd. / SR-905 WB Ramps	723	818	-	900	None	None	-	1,255	225	-	450	805	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,160	328	450	-	710	None	-	2,575	-	900	-	1,675	-
Britannia Blvd. / Airway Rd.	-	7,500	1,795	900	-	6,600	895	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,633	3,250	-	450	1,183	2,800	-
La Media Rd. / SR-905 WB Ramps	118	1,570	-	450	None	1,120	-	120	2,575	5,850	900	None	1,675	4,950
La Media Rd. / SR-905 EB Ramps	95	5,050	-	900	None	4,150	-	1,088	880	-	900	188	None	-
La Media Rd. / Airway Rd.	-	4,500	3,275	900	-	3,600	2,375	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	1,835	-	450	160	1,385	-
Caliente Ave. / SR-905 WB Ramps	-	1,078	-	450	-	628	-	1,540	1,195	-	450	1,098	745	-
Caliente Ave. / SR-905 EB Ramps	-	115	415	450	-	None	None	-	1,338	-	300	-	1,038	-
Caliente Ave. / Airway Rd.	-	1,630	485	300	-	1,330	185	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	323	543	-	750	None	None	-
Heritage Rd. / SR-905 WB Ramps	-	115	1,143	750	-	None	393	-	2,213	-	750	-	1,463	-
Heritage Rd. / SR-905 EB Ramps	-	213	328	750	-	None	None	-	2,273	-	750	-	1,523	-
Heritage Rd. / Airway Rd.	63	-	3,175	750	None	-	2,425	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	425	418	368	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	573	963	-	900	None	63	-	7,425	30	-	450	6,975	None	-
Britannia Blvd. / SR-905 EB Ramps	-	123	268	450	-	None	None	-	2,575	-	900	-	1,675	-
Britannia Blvd. / Airway Rd.	-	1,623	1,230	900	-	723	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	1,870	-	450	340	1,420	-
La Media Rd. / SR-905 WB Ramps	295	2,675	-	450	None	2,125	-	305	1,193	7,250	900	None	293	6,350
La Media Rd. / SR-905 EB Ramps	585	2,650	-	900	None	410	-	1,663	503	-	900	763	None	-
La Media Rd. / Airway Rd.	-	2,333	873	900	-	1,433	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	183	50	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	623	670	600	-	23	70	-	240	5,775	1,000	-	None	4,775
Palm Ave. Denberry Rd.	395	215	493	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	960	5,250	-	600	360	4,650	-
Siempre Viva Rd. / SR-905 SB Ramps	-	683	-	300	-	383	-	348	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	743	600	-	None	143	-	590	1,395	1,150	-	None	245
Siempre Viva Rd. / Paseo de las Americas	-	2,125	3,775	1,150	-	975	2,625	-	-	-	-	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	-	-	-	290	-	-	500	None	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	50	108	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	650	-	600	-	50	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	148	918	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	523	-	2,000	-	None	-	-	60	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	495	500	-	-	None	-	133	223	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	-	1,318	260	700	-	1,058	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound			
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-		508	198	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	398	473	600	-	None	None		-	548	4,400	1,000	-	None	3,400
Palm Ave. Dennerly Rd.	2,383	323	710	1,000	1,383	None	None		-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-		830	808	-	600	230	208	-
Siempre Viva Rd. / SR-905 SB Ramps	-	3,675	-	300	-	3,375	-		1,435	-	-	600	835	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,425	600	-	None	3,825		-	2,625	2,283	1,150	-	1,475	1,133
Siempre Viva Rd. / Paseo de las Americas	-	393	2,280	1,150	-	None	1,130		-	-	-	-	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	-	-	-		1,008	-	-	500	508	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	3,100	500	-	-	2,600		-	285	2,750	600	-	None	2,150
Lone Star Rd. / Piper Ranch Rd.	-	75	-	600	-	None	-		-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-		280	1,635	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	218	-	2,000	-	None	-		-	138	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	725	500	-	-	225		-	243	1,318	700	-	None	618
Otay Mesa Rd. / Harvest Rd.	-	205	120	700	-	None	None		-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound				Southbound	Southbound			Northbound			Northbound	Northbound	
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	200	138	2,875	450	None	None	2,425
Caliente Ave. / SR-905 WB Ramps	485	415	-	450	35	None	-	605	1,585	-	450	155	1135	-
Caliente Ave. / SR-905 EB Ramps	-	120	198	450	-	None	45	-	695	98	300	-	395	None
Caliente Ave. / Airway Rd.	-	350	1,573	300	None	50	1,273	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	338	663	1,260	750	None	None	510
Heritage Rd. / SR-905 WB Ramps	-	33	225	750	-	None	None	-	548	470	750	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	143	130	750	-	None	None	-	1,643	48	750	-	893	None
Heritage Rd. / Airway Rd.	245	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	665	990	1,085	900	None	90	185
Britannia Blvd. / SR-905 WB Ramps	368	548	-	900	None	None	-	1,255	225	-	450	805	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,160	328	450	-	710	None	-	688	440	900	-	None	none
Britannia Blvd. / Airway Rd.	3,000	3,125	1,795	900	2,100	2,225	895	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,633	970	873	450	1,183	520	423
La Media Rd. / SR-905 WB Ramps	118	1,570	-	450	None	1,120	-	120	855	-	900	None	None	-
La Media Rd. / SR-905 EB Ramps	48	2,675	-	900	None	1,775	-	1,088	880	-	900	188	None	-
La Media Rd. / Airway Rd.	1,370	1,615	3,275	900	470	715	2,375	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	370	353	450	160	None	None
Caliente Ave. / SR-905 WB Ramps	368	498	-	450	None	48	-	390	1,195	-	450	None	745	-
Caliente Ave. / SR-905 EB Ramps	-	115	188	450	-	None	None	-	985	228	300	-	685	None
Caliente Ave. / Airway Rd.	-	1,630	485	300	None	1,330	185	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	323	310	233	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	115	1,143	750	-	None	393	-	303	1,148	750	-	None	398
Heritage Rd. / SR-905 EB Ramps	-	213	328	750	-	None	None	-	1,200	138	750	-	450	None
Heritage Rd. / Airway Rd.	63	-	3,175	750	None	-	2,425	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	425	418	368	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	573	503	-	900	None	None	-	7,425	30	-	450	6,975	None	-
Britannia Blvd. / SR-905 EB Ramps	-	123	268	450	-	None	None	-	2,625	820	900	-	1,725	None
Britannia Blvd. / Airway Rd.	565	525	1,230	900	None	None	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	398	600	450	340	None	150
La Media Rd. / SR-905 WB Ramps	153	2,675	-	450	None	2,125	-	305	450	-	900	None	None	-
La Media Rd. / SR-905 EB Ramps	238	1,310	-	900	None	410	-	1,163	503	-	900	263	None	-
La Media Rd. / Airway Rd.	288	888	873	900	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	228	78	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	273	118	-	600	None	None	-	-	35	258	1,000	-	None	None
Palm Ave. Dennerly Rd.	395	215	493	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	308	2,950	7,898	600	None	2,350	1,298
Siempre Viva Rd. / SR-905 SB Ramps	-	683	-	300	-	383	-	348	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	743	600	-	None	143	-	538	518	1,150	-	None	180
Siempre Viva Rd. / Paseo de las Americas	2,170	1,095	1,138	1,150	1,020	None	None	-	-	-	-	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	-	-	-	290	-	-	500	None	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	50	108	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	650	-	600	-	50	None	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	148	523	103	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	523	-	2,000	-	None	-	-	60	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	495	500	-	None	None	-	133	223	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	225	313	260	700	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour														
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			
	Eastbound				Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT		LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-		553	195	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	168	205	-	600	None	None	-		-	75	345	1,000	-	None	None
Palm Ave. Dennerly Rd.	2,383	323	710	1,000	1,383	None	None		-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-		280	615	35	600	None	15	None
Siempre Viva Rd. / SR-905 SB Ramps	-	3,675	-	300	-	3,375	-		1,435	-	-	600	835	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,425	600	-	None	3,825		-	910	2,900	1,150	-	None	1,750
Siempre Viva Rd. / Paseo de las Americas	403	445	748	1,150	None	None	None		-	-	-	-	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	338	-	-	-	-	-		1,008	-	-	500	508	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	3,100	500	-	-	1,615		-	285	2,750	600	-	None	2,150
Lone Star Rd. / Piper Ranch Rd.	-	75	-	600	-	None	None		-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-		268	1,220	55	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	218	-	2,000	-	None	-		-	138	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	725	500	-	None	225		-	243	1,318	700	-	None	618
Otay Mesa Rd. / Harvest Rd.	60	370	120	700	None	None	None		-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.

TH = Through Lanes

LT = Left Turn Lane

RT = Right Turn Lane

8.0 COMPARISON OF SCENARIOS

8.1 Roadway Segments

The table below summarizes roadway segment levels of service for the three scenarios without and with reclassifications.

A comparison of segments at levels of service “E” or “F”, indicate the comparative roadway congestion among three alternatives.

Before Reclassification of Segments				
		No Project	3B With La Media Rd.	3B Without La Media Rd.
Total Segments		118	118	117
LOS	E	13	4	9
LOS	F	46	37	32
Total	(E+F)	59	41	41

After Reclassification of Segments				
		No Project	3B With La Media Rd.	3B Without La Media Rd.
LOS	E	12	5	5
LOS	F	26	21	19
Total	(E+F)	38	26	24

The 3B With and Without La Media Road scenarios would be less congested overall compared to the No Project scenario when considering roadway segment levels of service at E and F. After reclassification of roadway segments, the No Project scenario would have 12 more segments at levels of service “E” and “F” than scenario 3B With La Media Road and 14 more segments than 3B Without La Media Road.

The No Project scenario would generate more average daily vehicle trips due to higher intensity, non-residential, industrial type uses than the 3B scenario. All three scenarios would have reduced levels of congestion if new development was assumed at lower average floor area ratios than were used to develop the land use intensity inputs for the Otay Mesa Community Plan Update traffic forecasts that were the basis for the evaluation of these land use scenarios.

Other methods to attempt to reduce roadway congestion are outlined in the City of San Diego General Plan Mobility Element Transportation Demand Management (TDM) section. As described in that section, TDM is a general term for strategies that assist in reducing the demand for single-occupant vehicle travel to increase the efficiency of existing transportation resources. Transportation Demand Strategies are primarily directed at weekday commuters and are structured to:

- Reduce single-occupant vehicle trips by encouraging alternative modes of travel such as carpooling, vanpooling, transit use, bicycling, and walking.
- Support the use of alternative modes of travel by encouraging on-site amenities, programs, and incentives such as the use of car sharing vehicles, bicycle lockers, food and child care services, guaranteed ride home programs, and commuter benefits for commercial and industrial uses.

- Alter the timing of travel to less congested time periods, through strategies such as alternative work schedules; or
- Reduce the number of commute trips through strategies such as telework, and alternative work schedules.

In order to reduce community wide roadway segment congestion it is recommended that the Otay Mesa Community Plan encourage the practice of Transportation Demand Management as development occurs.

The updated Otay Mesa Community Plan will provide for transit use, bicycle use, and pedestrian activity through the establishment of transit bus stops, bicycle routes and lanes, and appropriate pedestrian linkages.

8.2 Freeway Segment Levels of Service

The table below shows a comparison of freeway segment levels of service. A review of this table indicates that the 3B With La Media Road scenario is preferable based on levels of service E, F0, F1, F2, and F3.

	No Project	3B With La Media Rd.	3B Without La Media Rd.
LOS E	-	1	-
LOS F0	3	3	4
LOS F1	1	1	1
LOS F2	1	1	1
LOS F3	2	1	1
Total	7	7	7

The No Project scenario would have two segments at level of service “F3” indicating extremely severe congestion and delay, while the 3B scenario would only have one segment at level of service “F3”. The 3B With La Media Road scenario would have one segment at level of service “E”, while the other two scenarios would have none. Overall, the intensity and duration of delays would be less with the 3B With La Media Road scenario. The No Project scenario has a higher intensity land use generating more vehicle trips. The 3B Without La Media Road scenario, although at the same land use intensity as the 3B With La Media Road scenario, has one less connection to and from outside the Otay Mesa Community, the deletion of La Media Road north of Lone Star Road, so that traffic is diverted to other freeway segments.

The Adopted SANDAG 2050 Regional Transportation Plan includes two managed lanes on I-805 in each direction north of SR-905. The addition of these lanes would improve levels of service between SR-905 and Palm Avenue to level of service “D” for all three scenarios. The segment between Palm Avenue and Main Street would improve to level of service “D” for both of the 3B scenarios and to “E” for the No Project scenario. These added managed lanes should be considered partial mitigation for regional cumulative traffic impacts.

The implementation of Transportation Demand Management Plans for large development projects would also reduce, but not mitigate for, regional cumulative freeway impacts.

State Route 905 traffic impacts would be significant and unmitigated for all three scenarios. State Route 905 has been designed so that median High Occupancy Vehicle lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts but would not provide acceptable levels of service on segments of SR-905 projected to be at level of service “F”, so that SR-905 traffic impacts would remain significant and unmitigated. The City of San Diego requested that HOV lanes on SR-905 be added to the Regional Transportation Plan as part of comments on the Draft 2050 RTP DEIR. The Unconstructed Network in the 2050 RTP includes 8 freeway lanes on SR-905.

8.3 Intersection Levels of Service

The table below shows a comparison of intersection levels of service among the three scenarios, before and after mitigation, with a tabulation at level of service “E” or “F”

	No Project (53 Total)		3B With La Media Rd. (53 Total)		3B Without La Media Rd. (52 Total)	
	AM	PM	AM	PM	AM	PM
LOS E, F Before Mitigation	46	48	40	43	42	44
LOS E, F After Mitigation	35	37	27	29	28	29

Without mitigation, the No Project alternatives would have 46 intersections operating unacceptably at LOS E or F during the AM peak hour, compared to 40 intersections operating unacceptably for the 3B With La Media Road, and 42 for the 3B Without La Media Road alternatives. During the PM peak hour the No Project alternative would have unacceptable intersection operations at 48 locations, compared to 43 locations for the 3B With La Media Road, and 44 for the Without La Media Road alternatives.

With mitigation recommended in this report, the No Project alternative would have 35 intersections operating unacceptably at LOS E or F during the AM peak hour, compared to 27 intersections for the 3B With La Media Road, and 28 for the 3B Without La Media Road alternatives. During the PM peak hour, the No Project alternative would have 37 intersections operating unacceptably compared to 29 intersections for the 3B With La Media Road alternative, and 29 intersections for the 3B Without La Media Road alternative, which has one less intersection.

High peak hour volumes at intersections are due to the combined peak hour characteristics of manufacturing, industrial park, business park, and office uses. The City of San Diego Trip Generation Manual (Table 1) includes peak hour factors that are used to convert average daily traffic volumes to peak hour volumes for different types of uses. That table shows that the predominant type of uses assumed in the Otay Mesa Community Plan have high peak hour percentages of average daily traffic, ranging from 12% for business park uses to 20% for manufacturing uses.

In addition, the directional peak hour inbound to outbound traffic ratio for peak hours is strong in one direction for these types of uses. Typically, for these uses, AM peak hour inbound traffic flows are 90% to 80% of the total peak hour traffic, while outbound traffic flows are typically 80% of the total PM peak hour traffic.

Since the central and eastern community is planned for primarily employment uses rather than residential uses, traffic volumes into and out of the community during peak hours are high in one direction rather than more balanced as they might be in a mixed use residential / employment type of setting, resulting in high peak hour intersection volumes.

Also contributing to high directional peak hour traffic flow is the influence of the County of San Diego East County Specific Plan, which has land use assumptions that are typically commercial and industrial types of uses with very little residential development planned.

The peak hour flows evaluated in this report are to be considered traffic “demand” volumes, based on the Trip Generation Manual peak hour characteristics for these types of uses, and the high intensity of the land uses assumed in the traffic model. These volumes may not materialize due to capacity constraints of the regional transportation facilities, but the mitigation recommendations in the report are unlikely to change considerably if peak hour volumes are tempered by regional peak spreading.

Although mitigation would probably not change with the spreading out of peak hour volumes, intersection delay could be reduced. The Otay Mesa Community Plan should encourage or require the preparation of a TDM plan for large projects during the development review process, as an effort to incrementally reduce peak hour traffic flows.

8.4 Overall Comparison

The higher land use intensities of the No Project scenario results in more unacceptable intersection levels of service, and subsequently more congestion and delay, than both of the 3B scenarios. The 3B scenarios have the same land use assumptions, but the 3B Without La Media Road scenario has more of a detrimental impact since traffic diverted from the deleted segment of La Media Road would divert to other roadway and freeway segment and incrementally increase peak hour traffic at some freeway interchanges and nearby intersections. However, the City of Chula Vista is preparing a General Plan amendment, anticipated in Spring 2012, that will delete the La Media Road bridge crossing the Otay River Valley from their General Plan, and has deleted this project from their facilities financing plan. Therefore, the “With La Media Road” connection to Chula Vista is no longer a viable alternative.

8.5 Ramp Meter Operations

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. The likely most restrictive ramp meter rate as provided by Caltrans was used for ramp meter evaluation for comparison of the three scenarios. Ramp meters were assumed at the on-ramps for the eight freeway interchanges within the study area.

Both ramp meter delay and estimated queues were tabulated. The high peak hour volume demand at freeway on-ramps evaluated in this report produce long delays and, in most cases, unrealistic ramp queue lengths. However, the guidelines include the following caution:

“Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, [if available], use another freeway, or stay on surface streets.”

Accommodating ramp meter queues involves approach lane striping to appropriately store queued vehicles within the existing roadways. There are currently no on-ramp meters at the study area interchanges, so that appropriate measures to accommodate ramp meter queues should be applied during ramp meter design.

For purposes of evaluating the alternatives, the summary below shows a comparison of ramp meter delays and queues exceeding the available storage that were estimated in this report. Queue lengths are a total length of estimated queues made up of vehicles approaching the on-ramp from two directions.

ON-RAMP METER DELAYS AND QUEUES						
	No Project		3B With La Media Rd.		3B Without La Media Rd.	
	AM (1)	PM (1)	AM (1)	PM (1)	AM (1)	PM (1)
Delay Above 15 Minutes	6	11	5	11	5	11
(2) Exceed Ramp Storage	6	11	7	11	7	11

Note:

- (1) A Total of 14 On-Ramps Evaluated
Queue lengths exceeding ramp storage length.

The No Project alternative has 17 AM and PM delays above 15 minutes, while the other two alternatives are the same with 16 peak hour delays above 15 minutes. Of the 28 queues evaluated, the No Project scenario would have one less queue exceeding the ramp storage length, a total of 17 AM and PM queues out of 28 evaluated, compared to 18 for the 3B scenarios.

All three scenarios would benefit from efforts to lower peak hour volumes by implementation of Transportation Demand Management Plans, which are recommended to be encouraged or required of large projects during the development review process.

8.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the eight freeway interchanges within the study area. Vehicle queues within the interchange between ramp intersections and between ramps and adjacent surface street intersections were estimated. The Highway Capacity Manual intersection level of service analysis computer software includes a back-of-queue worksheet for the approaches to the evaluated intersection, and was used for the queue length estimates in this report. There are no intersection queue length performance criteria within the Regional SANTEC / ITE Traffic Impact Study Guidelines. This queue analysis was provided to primarily evaluate whether interchanges could accommodate the projected peak hour traffic volumes and then to compare the three scenarios evaluated in this report.

Queue lengths estimated at locations with high amounts of delay are unreliable since queue estimation is a complex issue and can not be accurately determined by the current software.

Mitigation for lengthy interchange queues should be limited to restriping for maximum turn lane lengths, possibly extending through adjacent upstream intersections, and by adding separate right turn lanes at the approaches to on-ramps when feasible.

The tabulation below shows queue lengths exceeding the storage available between intersections for each alternative, without and with intersection mitigation at certain locations. The mitigation assumed was that previously identified to improve intersection levels of service as determined for each scenario and is not meant specifically for queue length mitigation, although in some cases additional lanes at on-ramp approaches improves levels of service based on delay and, subsequently, shortens some queues.

As shown in this table:

QUEUES EXCEEDING AVAILABLE STORAGE						
	No Project		3B With La Media Rd.		3B Without La Media Rd.	
	AM	PM	AM	PM	AM	PM
Without Mitigation	46 (83)	46 (83)	41 (82)	38 (82)	40 (79)	40 (79)
With Mitigation	41 (96)	35 (96)	37 (94)	32 (94)	34 (94)	29 (94)

Note:

(xx) = Number of Queues Evaluated for Each Scenario

- The No Project scenario would have 92 AM and PM total queues exceeding the available storage between intersections out of 166 evaluated without mitigation, and 76 AM and PM total queues out of 192 evaluated with mitigation. More queues were evaluated with mitigation since in many cases right turn only lanes were added.

- The 3B With La Media Road scenario would have 79 AM and PM total queues exceeding the available storage between intersections out of 164 evaluated without mitigation, and 69 AM and PM total queues out of 188 evaluated with mitigation.
- The 3B Without La Media Road scenario would have 80 AM and PM total queues exceeding the available storage between intersections out of 158 evaluated without mitigation, and 63 AM and PM total queues out of 188 evaluated with mitigation.

The following summarizes the number of queues exceeding the available storage, with intersection mitigations for each scenario:

- No Project (78 queues);
- 3B With La Media Road (69 total queues);
- 3B Without La Media Road (63 total queues).

The implementation of Transportation Demand Management Plans for development projects could potentially reduce peak hour volumes incrementally and subsequently reduce queue lengths at freeway interchanges.

9.0 REFERENCES

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