

4.14 TRAFFIC/TRANSPORTATION

INTRODUCTION

This section of the EIR analyzes the Project's potential effect on traffic and the circulation system. Relevant regulations and existing conditions are described as well as the potential for the Project to result in traffic/transportation-related impacts associated with: increases in vehicle trips and traffic congestion; exceedance of established levels of service by the County of Orange and City of Yorba Linda; increased hazards due to design features; and the potential for the Project to conflict with adopted policies supporting alternative transportation. The traffic impact analysis in this section is based on the *Cielo Vista Traffic Analysis* (herein referred to as the "Traffic Study"), prepared by Urban Crossroads, dated February 22, 2013. The Traffic Study is contained in Appendix L of this EIR. The Traffic Study has been prepared in consultation with both County of Orange and City of Yorba Linda Engineering and Planning staff. The analysis considers impacts based on both the County of Orange and City of Yorba Linda traffic impact thresholds.

1. ENVIRONMENTAL SETTING

a. Regulatory Framework

(1) Federal

There are no federal transportation regulations pertinent to the Project.

(2) State

(a) Statewide Transportation Improvement Program

The California Department of Transportation (Caltrans) administers transportation programming, which is the public decision making process that sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multi-year period to transportation projects. The Statewide Transportation Improvement Program (STIP) is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources.

(3) Regional and Local

(a) Southern California Association of Governments Regional Transportation Plan

The Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP) is a federal- and state-mandated transportation plan that envisions the future multi-modal transportation system for the region and provides the basic framework for coordinated, long-term investment in the regional transportation system over the RTP planning horizon of 2035. In compliance with state and federal requirements, SCAG prepares the Regional Transportation Improvement Program (RTIP) to implement projects and programs listed in the RTP. Updated every other year, the RTP contains a listing of all transportation projects proposed for the region over a six-year period. Transportation projects proposed in the region are required to be consistent with the RTP and included within the RTIP to be eligible for State or federal funding.

The 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted by SCAG on April 4, 2012. The 2012-2035 RTP/SCS identifies mobility as an important component of a much larger picture with added emphasis on sustainability and integrated planning. In addition, the RTP/SCS includes goals and policies that pertain to mobility, accessibility, safety, productivity of the transportation system, protection of the environment and energy efficiency, and land use and growth patterns that complement the State and region's transportation investments. An integral component of the RTP/SCS is a strong commitment to reduce emissions from transportation sources, in order to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the Clean Air Act. For further discussion of air quality and greenhouse gas emissions, see Section 4.2, *Air Quality*, and Section 4.6, *Greenhouse Gas Emissions*, respectively, of this EIR.

(b) Orange County Congestion Management Plan

Based on the approval of Proposition 111 in 1990 [Prop. 111, as approved by voters, Primary Elec. (June 5, 1990, amending Cal. Const., art. XVI, § 8)], regulations require the preparation, implementation, and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants, and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process.

The purpose of the state-mandated CMP is to monitor roadway congestion and assess the overall performance of the region's transportation system. Based upon this assessment, the CMP contains specific strategies and identifies proposed improvements to reduce traffic congestion and improve the performance of a multi-modal transportation system. Examples of strategies include increased emphasis on public transportation and rideshare programs, mitigating the impacts of new development and better coordinating land use and transportation planning decisions.

None of the roadways directly serving the project site are within the CMP system. The only CMP roadway in the vicinity of the project site is Imperial Highway, located north of Yorba Linda Boulevard. The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. The applicable trip generation thresholds are 2,400 daily trips. The Project's potential for impacts to CMP facilities are discussed below.

(c) County of Orange General Plan

The Orange County General Plan Transportation Element provides information about the transportation needs of the County and states goals, objectives, and policies to meet those needs. The Transportation Element also states the acceptable "level of service" (LOS) for the County. A detailed discussion and definition of LOS standards is provided in the Existing Conditions section below. Currently, the County deems LOS "C" an acceptable LOS, but accepts LOS "D" at County intersections during peak hours. The goals and policies in the Transportation Element generally involve the provision of a circulation system that is safe, convenient, efficient, and integrated with the surrounding jurisdictions.

In addition to the Transportation Element, the Growth Management and Land Use Elements include goals and policies that relate to transportation and traffic issues. The purpose of the Growth Management Element

is “to mandate that growth and development be based upon the County’s ability to provide an adequate circulation system” as well as other support services and facilities. The Project’s consistency with the applicable goals and policies of the General Plan is discussed in the impact analysis below.

(d) City of Yorba Linda General Plan

The City’s General Plan contains goals and policies that are relevant to traffic and circulation, including goals and policies contained in the General Plan Circulation, Land Use and Growth Management Elements. According to the City of Yorba Linda’s General Plan Circulation Element, the goal for design capacity is to provide LOS “C” on arterial highway links with the intent of maintaining a LOS “D” through intersections. The Project’s consistency with the applicable goals and policies of the General Plan is discussed in the impact analysis below.

b. Existing Conditions

(1) Regional and Local Access

Regional access for the project site is provided by a system of freeways, highways and local arterials. Most notably, the 91 Freeway, located approximately two miles northwest of the project site, is an east-west regional freeway serving the Los Angeles area, and extends from the City of Torrance to the City of Riverside. In the vicinity of the City of Yorba Linda and near the project site in unincorporated Orange County, the 91 Freeway includes six-lanes in each direction (eastbound and westbound). Two of the six lanes in each direction are designated for the 91 Express Lane. The 91 Express Lane is a ten-mile toll road built in the median of the 91 Freeway between the Orange/Riverside County line and the Costa Mesa Freeway, State Route 55.

Local access to the project area is provided from Yorba Linda Boulevard located approximately 0.25 miles south of the project site. Access to Planning Area 1 (which includes 112 single-family homes within 41.3 acres) would be provided from Via del Agua, located to the south of the project site that connects with Yorba Linda Boulevard. Planning Area 2 (which includes 17 residences within 6.4 acres), would be provided from Aspen Way. Aspen Way extends approximately 1,200 feet west of the project site connecting to San Antonio Road, which intersects with Yorba Linda Boulevard.

(2) Local Street System

The following provides a description of the roadways in the local vicinity of the project site.

Yorba Linda Boulevard is a six-lane divided roadway from west of Imperial Highway to Fairmont Boulevard and reduces to a four-lane divided roadway from Fairmont Boulevard to east of Via del Agua. Curb and gutter improvements and development are present on both sides of the roadway. Yorba Linda Boulevard is designated as a Major road west of Fairmont Avenue and as a Primary Arterial Highway east of Fairmont Avenue according to both the Orange County Master Plan of Arterial Highways (MPAH) and the City of Yorba Linda General Plan. Yorba Linda Boulevard is planned to be widened to provide two (2) left turn lanes, three (3) through lanes and two (2) right turn lanes in the westbound direction at Imperial Highway (i.e., committed improvements). Yorba Linda Boulevard is also planned be widened to provide two (2) left turn lanes in each direction at Lakeview Avenue.

Lakeview Avenue is a two (2) lane undivided roadway north of Yorba Linda Boulevard. Lakeview Avenue consists of one travel lane in each direction with a striped two (2) way left turn lane between Lemon Drive and Yorba Linda Boulevard. Lakeview Avenue widens to a four (4) lane divided roadway south of Yorba Linda Boulevard. Curb and gutter improvements are not present on the west side of the street between Lemon Drive and Yorba Linda Boulevard. Lakeview Avenue is designated as a Secondary road north of Yorba Linda Boulevard and a Primary Arterial Highway south of Yorba Linda Boulevard per the County MPAH. Plans for the future widening of Lakeview Avenue, north of Yorba Linda Boulevard, include a 64 foot curb-to-curb width with a ten (10) foot painted median (two-way left turn lane), two (2) eleven (11) foot travel lanes and a five (5) foot shoulder.

Kellogg Drive is a two (2) lane divided roadway with curb and gutter improvements south of Yorba Linda Boulevard. Kellogg Drive is designated as a Secondary road on the County MPAH. The roadway cross-section for a Secondary road consists of two (2) travel lanes in each direction and eight (8) foot shoulders that could accommodate the proposed Class II bike lanes identified in the Orange County Transportation Authority (OCTA) Strategic Plan.

Imperial Highway is a six (6) lane divided at-grade State Highway (State Highway 90) north of Yorba Linda Boulevard then narrows to a four-lane divided grade separated freeway south of Yorba Linda Boulevard. Based on the County's MPAH, Imperial Highway is designated as a six (6) lane "Smart Street" north of Yorba Linda Boulevard. A "Smart Street" includes various traffic-carrying capacity enhancements such as the addition of turn or through lanes, preferential signal timing and synchronization, removal of on-street parking, access limitations, grade separations for pedestrians/intersections/turning movements, etc.

Fairmont Boulevard is a four (4) lane divided roadway with curb and gutter improvements. Fairmont Boulevard is designated as a Primary Arterial Highway on the County MPAH. The roadway cross-section for a Primary Arterial Highway road contains two travel lanes in each direction, a fourteen (14) foot median and ten (10) foot shoulders.

Village Center Drive is a four (4) lane divided roadway with curb and gutter improvements both north and south of Yorba Linda Boulevard. Village Center Drive is designated as a Secondary road on the County MPAH. The roadway cross-section for a Secondary road consists of two (2) travel lanes in each direction and eight (8) foot shoulders.

Paseo de las Palomas is a four (4) lane divided roadway with curb and gutter improvements south of Yorba Linda Boulevard. Paseo de las Palomas is designated as a non-MPAH Primary Arterial Highway on the City of Yorba Linda General Plan Circulation Element. The roadway cross-section for a Primary Arterial Highway road consists of two (2) travel lanes in each direction, a fourteen (14)-foot median and a ten (10) foot shoulder.

San Antonio Road is a two (2) lane undivided roadway with curb and gutter improvements north of Yorba Linda Boulevard. San Antonio Road is designated as a local road on the City of Yorba Linda General Plan Circulation Element. The roadway cross-section for a local road consists of one travel lane in each direction and 8-foot shoulders.

Yorba Ranch Road is a four (4) lane divided roadway with curb and gutter improvements south of Yorba Linda Boulevard. Yorba Ranch Road is designated as a non-MPAH Primary Arterial Highway on the City of Yorba Linda General Plan Circulation Element. The roadway cross-section for a Primary Arterial Highway road consists of two (2) travel lanes in each direction, a fourteen (14)-foot median and ten-foot shoulder.

Via del Agua is a two (2) lane undivided roadway with curb and gutter improvements north of Yorba Linda Boulevard. Via del Agua is designated as a local road on the City of Yorba Linda General Plan Circulation Element. The roadway cross-section for a local road consists of one (1) travel lane in each direction and eight (8) foot shoulders.

Aspen Way is not a General Plan classified roadway. It is currently a two (2) lane undivided roadway east of San Antonio Road and provides access to fewer than ten (10) residences. The Project proposes to provide access to Planning Area 2 via an extension of Aspen Way to the east.

Figure 4.14-1, *Orange County Master Plan of Arterial Highways*, displays the Orange County Master Plan of Arterial Highways which include existing and proposed roadway alignments. **Figure 4.14-2**, *City of Yorba Linda General Plan Circulation Element*, displays existing and planned roadways as identified in the City of Yorba Linda General Plan Circulation Element.

(3) Existing Traffic Conditions

(a) Study Area Intersections

Per the County of Orange CMP guidance, a project study area is defined based on intersection locations where the contribution of project traffic results in the intersection capacity utilization (ICU) value increasing by one (1) percent or more. The City of Yorba Linda traffic study guidelines recommends the analysis of study area intersections where the project is anticipated to contribute 50 or more peak hour trips.

Per discussions with both County of Orange and City of Yorba Linda Engineering and Planning staff, eleven (11) study area intersection locations were identified to be evaluated in this traffic analysis. The intersections are listed in **Table 4.14-1**, *Intersection Analysis Locations*, and shown on **Figure 4.14-3**, *Study Area Intersections Location Map*. Of these eleven (11) intersections, ten (10) intersection analysis locations currently exist, while Intersection No. 10 (Street "A" / Via del Agua) is a future project improvement that has not yet been constructed. **Figure 4.14-4**, *Existing Number of Through Lanes and Intersection Controls*, illustrates the number of through traffic lanes and intersection traffic controls for the study area intersections.

(b) Existing Traffic Volumes

Manual A.M. and P.M. peak hour turning movement counts were conducted in May and June 2012 while local schools were still in session. Existing (2012) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on **Figure 4.14-5**, *Existing (2012) Average Daily Traffic*. ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

- P.M. Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

Table 4.14-1

Intersection Analysis Locations

ID	Intersection Location	Location
1	Imperial Highway / Yorba Linda Boulevard	Yorba Linda
2	Lakeview Avenue / Yorba Linda Boulevard	Yorba Linda
3	Kellogg Drive / Yorba Linda Boulevard	Yorba Linda
4	Fairmont Boulevard / Yorba Linda Boulevard	Yorba Linda
5	Village Center Drive / Yorba Linda Boulevard	Yorba Linda
6	Paseo de las Palomas / Yorba Linda Boulevard	Yorba Linda
7	San Antonio Road / Aspen Way	Yorba Linda
8	San Antonio Road / Yorba Linda Boulevard	Yorba Linda
9	Yorba Ranch Road / Yorba Linda Boulevard	Yorba Linda
10	Street "A" / Via del Agua – Future Intersection	Yorba Linda
11	Via del Agua / Yorba Linda Boulevard	Yorba Linda

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads Inc., DATED February 22, 2013.

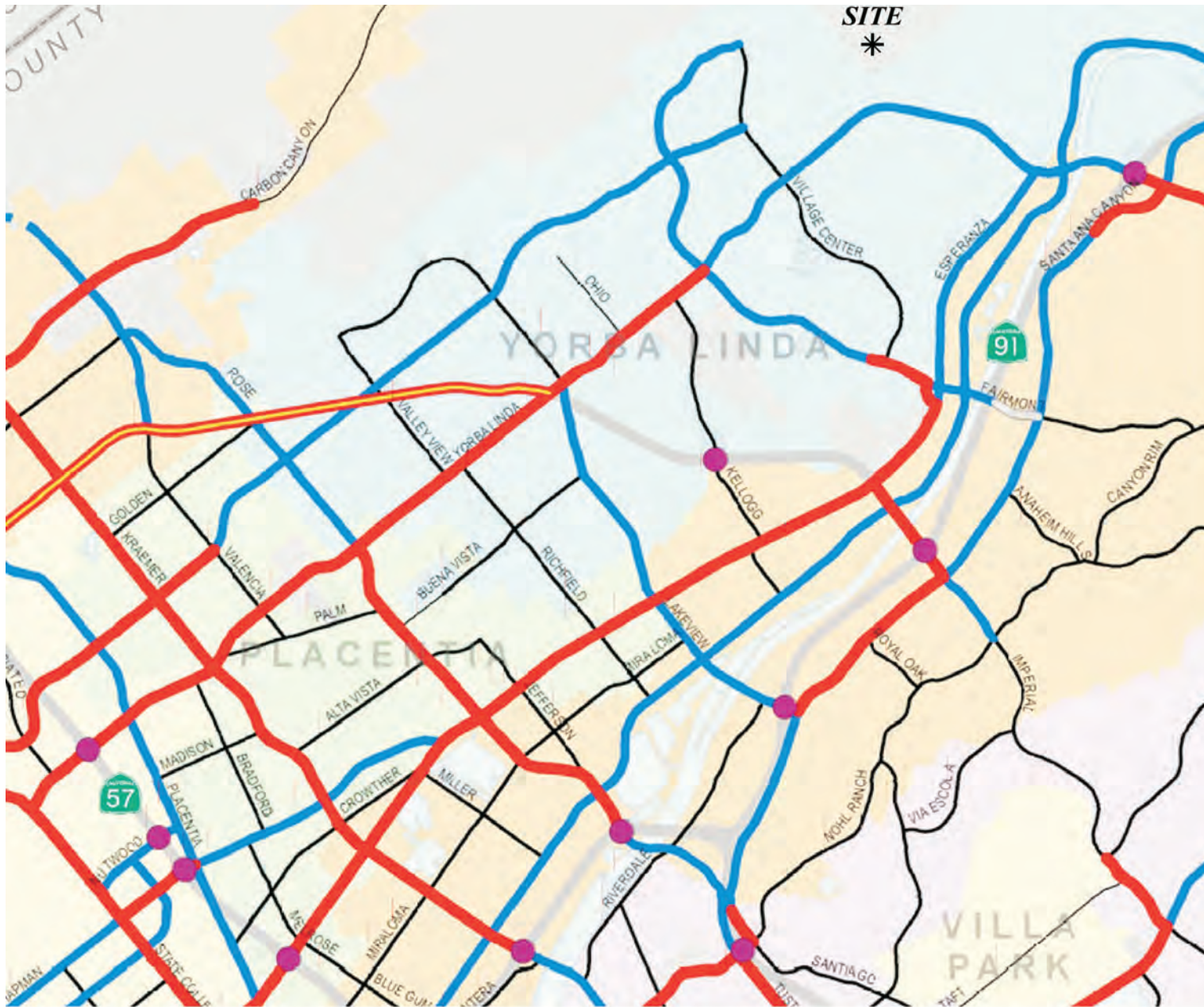
Based on a comparison of P.M. peak hour traffic count data to 24-hour tube count data along roadway segments within the study area, it was determined that the P.M. peak hour volumes represent approximately eight (8) percent of the total 24-hour daily volume on select segments.¹ As such, the above equation was utilized to approximate the ADT volume on the study area segments based on the same relationship (i.e., eight percent P.M. peak-to-daily relationship). Existing (2012) A.M. and P.M. peak hour intersection volumes are shown on Exhibits 3-10 and 3-11 within Appendix L, respectively.

(c) Existing Levels of Service

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS "A", representing completely free-flow conditions, to LOS "F", representing breakdown in flow resulting in stop-and-go conditions. LOS "F" represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

LOS "D" is the limit of acceptable intersection operations in the County of Orange and City of Yorba Linda. Intersections that operate at a LOS below LOS "D" (i.e., LOS "E" or LOS "F") are deemed to be operating at deficient levels.

¹ When conducting traffic counts, a tube is placed across the roadway and when a vehicle crosses the tube, the number of axle hits is counted. A computer divides the total number of axle hits by two. If ten 2-axle cars cross the tube, the computer counts 20 hits and divides by 2 for a count of 10. In this case, the count of 10 also represents ten vehicles. However, if ten tractor-trailer trucks with 5-axles per truck cross the tube, the computer would register 50 hits and divide by 2 for a count of 25 even though the number of vehicles was actually 10 trucks.



LEGEND:

ESTABLISHED ALIGNMENT	PROPOSED ALIGNMENT	
		PRINCIPAL
		MAJOR
		PRIMARY
		SECONDARY
		COLLECTOR
		FREEWAY
		TRANSPORTATION CORRIDOR
		SMART STREET 8 LANE
		SMART STREET 6 LANE
		SMART STREET 4 LANE
		ROADS OUTSIDE OF OC SHOWN FOR CONTINUITY
		EXISTING INTERCHANGE
		PROPOSED INTERCHANGE
		RIGHT-OF-WAY RESERVE

SOURCE: ORANGE COUNTY TRANSPORTATION AUTHORITY (OCTA)

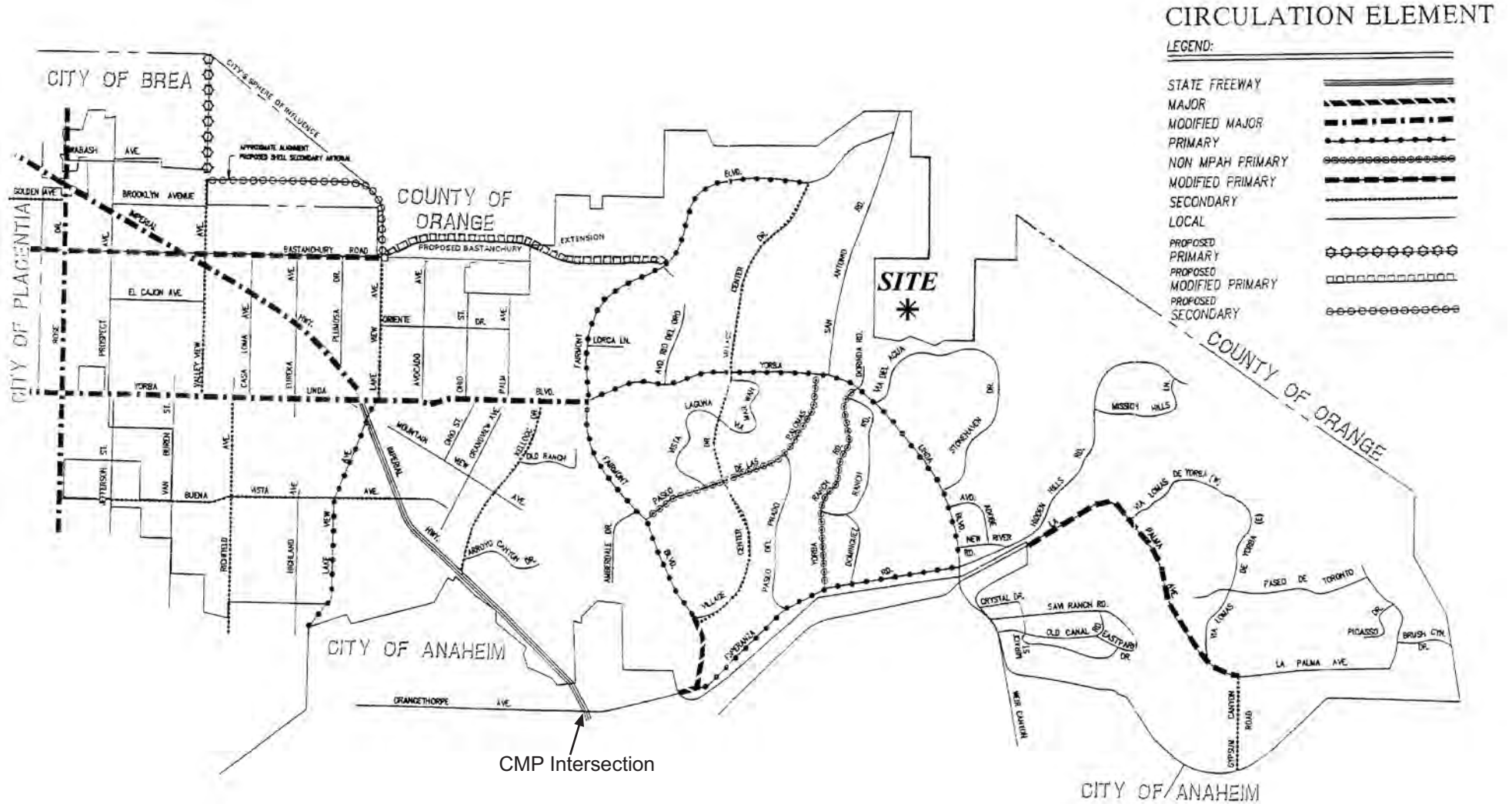


No scale

Orange County Master Plan of Arterial Highways

Cielo Vista Project
Source: Urban Crossroads, 2013.

FIGURE
4.14-1



CIRCULATION ELEMENT

LEGEND:

STATE FREEWAY	
MAJOR	
MODIFIED MAJOR	
PRIMARY	
NON MPAA PRIMARY	
MODIFIED PRIMARY	
SECONDARY	
LOCAL	
PROPOSED PRIMARY	
PROPOSED MODIFIED PRIMARY	
PROPOSED SECONDARY	



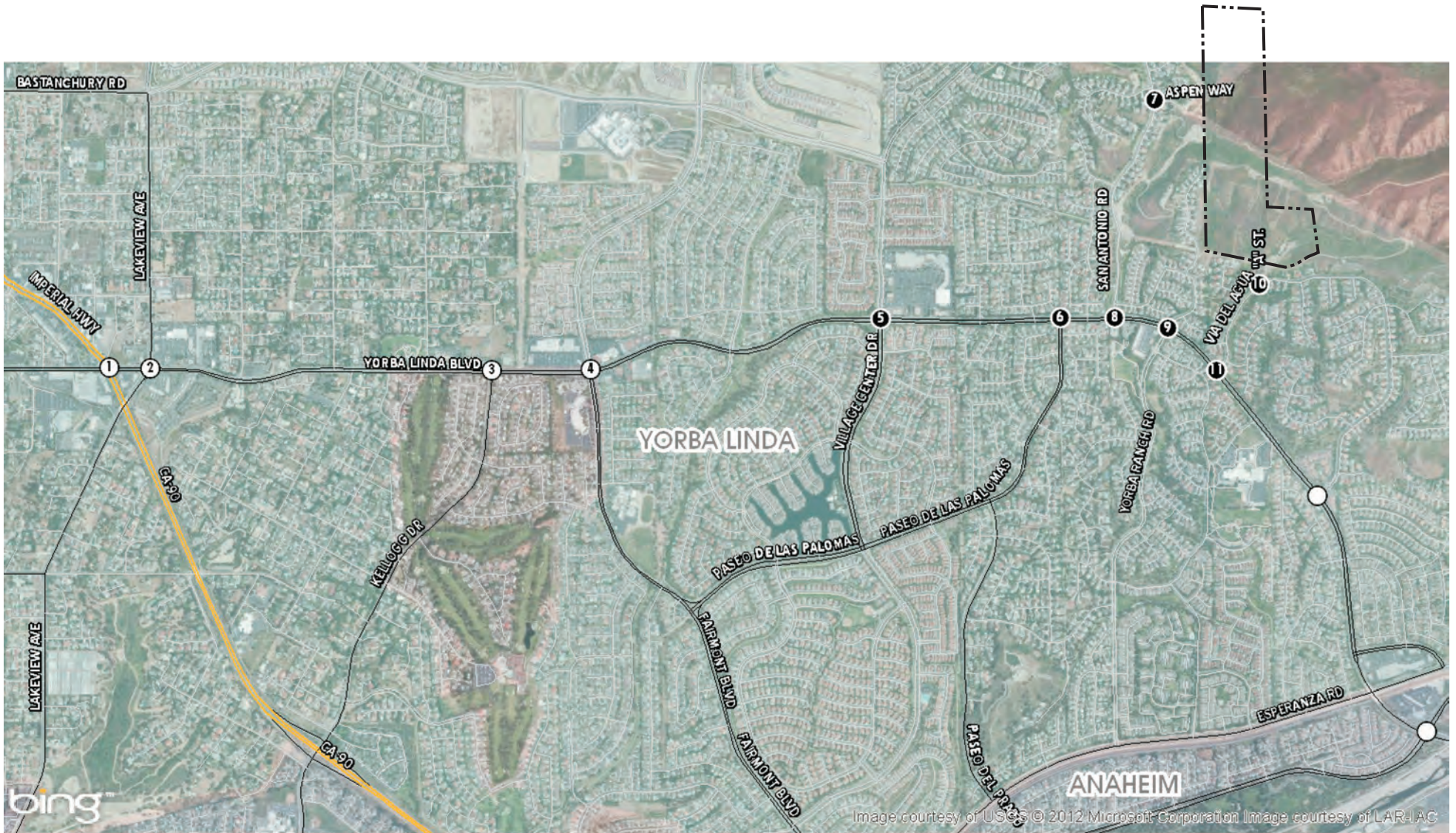
N

 No scale

City of Yorba Linda General Plan Circulation Element

FIGURE
4.14-2

Cielo Vista Project
 Source: Urban Crossroads, 2013.



LEGEND:

- PROPOSED INTERSECTION ANALYSIS LOCATIONS
- INTERSECTION THAT DOES NOT MEET 1% TEST (COUNTY OF ORANGE) OR 50 PEAK HOUR TRIP (CITY OF YORBA LINDA) THRESHOLD.
- ⋯ PROJECT SITE



Study Area Intersections Location Map

FIGURE

4.14-3

Cielo Vista Project
Source: Urban Crossroads, 2013.



LEGEND:

- = TRAFFIC SIGNAL
- = ALL WAY STOP
- = STOP SIGN
- 4** = NUMBER OF LANES
- D** = DIVIDED
- U** = UNDIVIDED
- RTO** = RIGHT TURN OVERLAP
- DEF** = DEFACTO RIGHT TURN LANE

<p>1 Imperial Hwy. & Yorba Linda Bl.</p>	<p>2 Lakeview Av. & Yorba Linda Bl.</p>	<p>3 Kellogg Dr. & Yorba Linda Bl.</p>	<p>4 Fairmont Bl. & Yorba Linda Bl.</p>	<p>5 Village Center Dr. & Yorba Linda Bl.</p>	<p>6 Paseo De Las Palomas & Yorba Linda Bl.</p>
<p>7 San Antonio Rd. & Aspen Wy.</p>	<p>8 San Antonio Rd. & Yorba Linda Bl.</p>	<p>9 Yorba Ranch Rd. & Yorba Linda Bl.</p>	<p>10 Street "A" & Via Del Agua</p> <p>FUTURE INTERSECTION</p>	<p>11 Via Del Agua & Yorba Linda Bl.</p>	

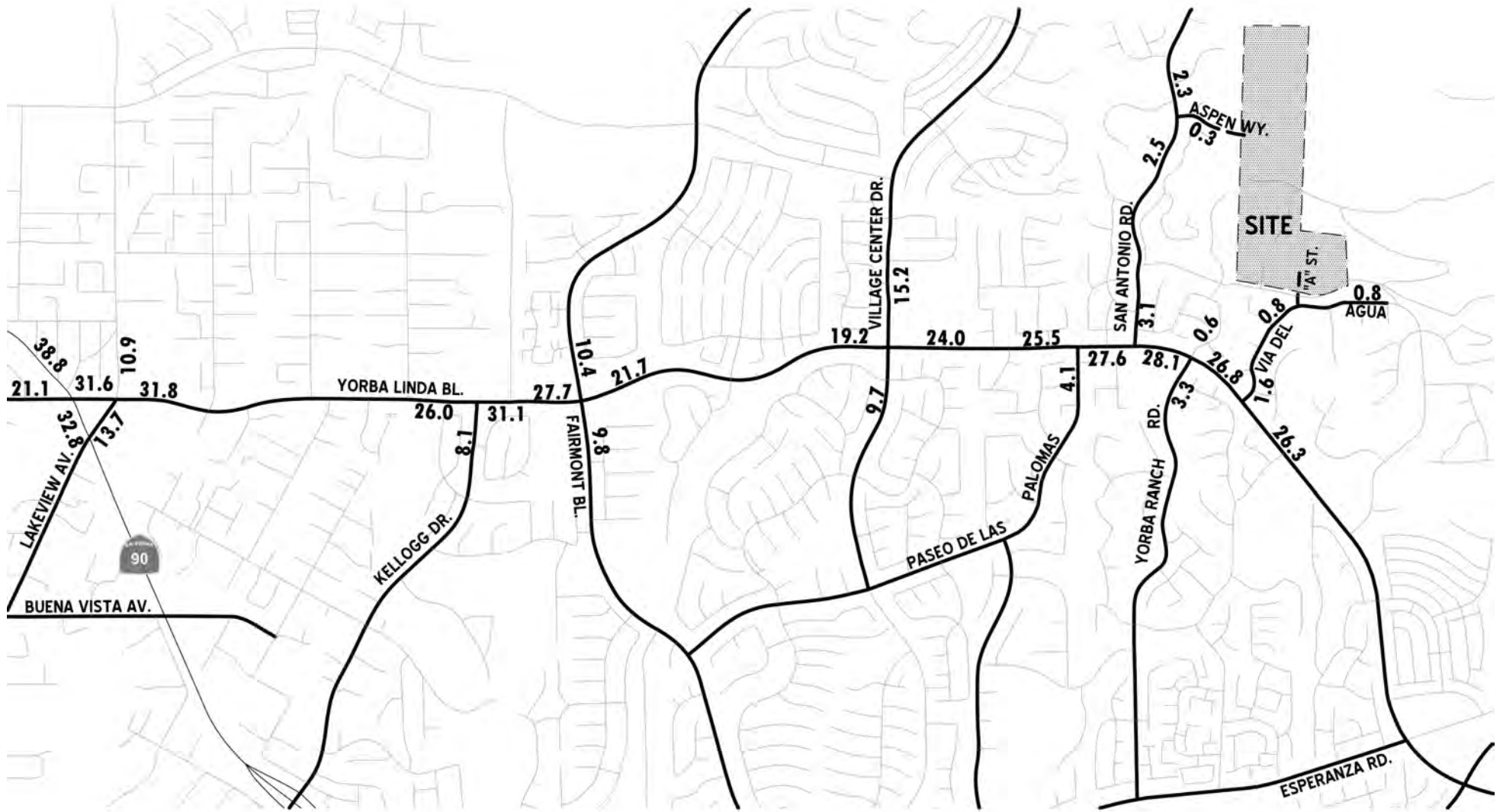


Existing Number of Through Lanes and Intersection Controls

FIGURE

4.14-4

Cielo Vista Project
Source: Urban Crossroads, 2013.



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



No scale

Existing (2012) Average Daily Traffic

FIGURE

4.14-5

Cielo Vista Project
Source: Urban Crossroads, 2013.

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The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in May and June 2012. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Signalized Intersections. The County requires study area intersections to be evaluated through ICU analysis which compares forecasts peak hour traffic volumes to intersection capacity. A minimum clearance interval of 0.05 in association with lane capacities of 1,700 vehicles per hour of green time for through lanes and turn lanes was assumed for the ICU calculations, consistent with the City of Yorba Linda ICU analysis methodology. Peak hour analyses for the signalized intersections were performed using the ICU methodology. **Table 4.14-2, ICU Signalized Intersection Level of Service (LOS) Thresholds**, presents the ICU LOS thresholds utilized in the Traffic Study at the signalized study area intersections.

Table 4.14-2

ICU Signalized Intersection Level of Service (LOS) Thresholds

Level of Service	ICU
A	<0.60
B	0.61 – 0.70
C	0.71 – 0.80
D	0.81 – 0.90
E	0.91 – 1.00
F	>1.00

Source: County of Orange and City of Yorba Linda

Unsignalized Intersections. Peak hour analysis for the unsignalized intersections was performed using the *Highway Capacity Manual (HCM)* analyses methodology which expresses the LOS at an intersection in terms of delay time for the various intersection approaches. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

The LOS rating is based on the weighted average control delay expressed in seconds per vehicle. **Table 4.14-3, HCM Unsignalized Intersection Level of Service (LOS) Thresholds**, presents the HCM LOS thresholds utilized for the traffic at the unsignalized study area intersections.

Table 4.14-3

HCM Unsignalized Intersection Level of Service (LOS) Thresholds

Level of Service	Description	Average Control Per Vehicle (Seconds)
A	Little or no delays.	0 to 10.00
B	Short traffic delays.	10.01 to 15.00
C	Average traffic delays.	15.01 to 25.00
D	Long traffic delays.	25.01 to 35.00
E	Very long traffic delays.	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded.	> 50.00

Source: Highway Capacity Manual, Chapter 17, 2000.

Table 4.14-4, Existing Peak Hour Intersection Level of Service, presents the LOS results for the study area intersections under existing conditions during the A.M. and P.M. peak hours. As shown on Table 4.14-4, all of the study area intersections are currently operating at an acceptable LOS during the peak hours (i.e., LOS “D” or better) with the exception of the intersection of Via del Agua at Yorba Linda Boulevard, which currently operates at LOS “F” during the A.M. peak hour.

It is important to note that the LOS for the through and turn movements on the major street (Yorba Linda Boulevard) are well within acceptable levels (i.e., LOS is “D” or better). However, vehicles exiting and making a southbound left from Via del Agua onto Yorba Linda Boulevard may experience extended delays (and unacceptable LOS) during the peak hours as through volumes along Yorba Linda Boulevard increase, thereby reducing the gaps in traffic for the existing vehicle to make a southbound left-turn. Per the HCM methodology, the worst delay and associated LOS has been reported; refer to Exhibit 3-12 in Appendix L, peak hour LOS in the study under existing conditions.

(d) Existing (2012) Traffic Signal Warrant Analysis

The term “signal warrants” refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The Traffic Study uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), as amended by 2012 California MUTCD (CA MUTCD), for all study area intersections.

The signal warrant criteria for Existing (2012) conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA’s MUTCD and the 2012 CA MUTCD indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. Specifically, the Traffic Study utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 criteria are basically identical for both the FHWA’s MUTCD and the 2012 CA MUTCD. Warrant 3 is appropriate to use because it provides specialized warrant criteria for intersections with urban characteristics (e.g. adjacent major streets operating below 40 miles per hour). For the purposes of this analysis, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Table 4.14-4

Existing Peak Hour Intersection Level of Service

Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
		Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
Imperial Hwy. / Yorba Linda Bl.	TS	1	3	0	2	3	0	1	3	0	1	2	2>	0.65	B	0.73	C
Lakeview Av. / Yorba Linda Bl.	TS	1	2	1>	1	2	0	1	3	0	1	3	0	0.55	A	0.58	A
Kellogg Dr. / Yorba Linda Bl.	TS	1	0	1>	0	0	0	0	3	0	2	3	0	0.43	A	0.59	A
Fairmont Bl. / Yorba Linda Bl.	TS	2	2	0	1	1	2>	1	3	1>	1	3	0	0.57	A	0.47	A
Village Center Dr. / Yorba Linda Bl.	TS	1	2	d	2	2	0	1	2	d	1	2	1	0.45	A	0.52	A
Paseo del las Palomas / Yorba Linda Bl.	TS	1	0	1	0	0	0	0	2	d	1	2	0	0.42	A	0.53	A
San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(8.2)	A	(8.2)	A
San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.47	A	0.44	A
Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.42	A	0.47	A
Street "A" / Via del Agua		Future Intersection															
Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	31.8	D

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = De facto Right Turn Lane

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS "C" or operate below LOS "C" and not meet a signal warrant.

For existing conditions, the intersection of Via del Agua at Yorba Linda Boulevard appears to currently warrant a traffic signal.

(e) Alternative Transportation

The project area is currently served by the OCTA with bus service along Imperial Highway via Route 20 and along Yorba Linda Boulevard and Fairmont Boulevard via Route 26. Bus service for Route 20 runs along Lakeview Avenue, then west along Yorba Linda Boulevard. Exhibit 3-6, within Appendix L, illustrates the locations of Routes 20 and 26. No bus routes are currently located or proposed adjacent the project site.

OCTA existing and proposed bikeways within the project vicinity are shown in Exhibit 3-7 within Appendix L. OCTA categorizes bikeways into three classifications:

- Class I—off street paved bike paths
- Class II—on-street striped and signed bicycle paths
- Class III—on-street shared lane bicycle routes

Class II bike lanes are currently provided along Fairmont Boulevard and along Yorba Linda Boulevard, east of Fairmont Boulevard. No bike facilities are currently located or proposed adjacent the project site.

The City of Yorba Linda planned system of riding, hiking trails and bikeways is shown on Figure 4.13-1, *Riding, Hiking and Bikeway Trail Component Map*, in Section 4.13, *Recreation*, of this EIR. Existing trails near the site located within the City of Yorba Linda include an earthen multipurpose (horse/bike) trail located along San Antonio Road and San Antonio Park to the west and south of the project site; an earthen multipurpose trail, trail head, and staging area located along Casino Ridge Road to the north of the site; an equestrian path located to the southwest of the site; and an earthen multipurpose trail located off Village Center Drive to the west of the site. No trails or bike facilities within the unincorporated areas of the County are located near the site. The City of Yorba Linda General Plan designates several planned trails within the project area. Please refer to Section 4.13, *Recreation*, in this EIR for a discussion of the trails and the Project's impacts related to trails.

(f) Access

The project site is currently undeveloped and includes various dirt roadways utilized for existing oil operations. The existing dirt roadways are not developed per County standards to accommodate emergency vehicles on site. Access to the project site is proposed to be provided at two points. Access to southern area of the project site (Planning Area 1) is provided from Via Del Agua. Under existing conditions, Via Del Agua does not currently provide direct access to the project site. Access to the northern portion of the site

(Planning Area 2) is provided from Aspen Way. Aspen Way, a local roadway, extends easterly from San Antonio Road with the paved improvements terminating at the westerly boundary of the project site.

2. ENVIRONMENTAL IMPACTS

a. Methodology

(1) Construction Traffic

The analysis of construction traffic included a determination of the approximate number of construction-related trips (i.e., construction worker trips and construction truck trips) that would occur as a result of the Project. The impacts of these estimated numbers of trips on the existing roadway system were then qualitatively assessed.

(2) Intersections

As discussed above, the analysis of existing and future traffic conditions for signalized intersections was based on the ICU methodology, while unsignalized intersections were evaluated based on the HCM methodology. As discussed in greater detail below, traffic impacts were evaluated by:

- (1) Determining the trip generation for the Project;
- (2) Assigning these Project trips to the roadway network;
- (3) Analyzing the future 2015 “Without Project” traffic conditions (existing conditions plus ambient growth and growth from the related projects);
- (4) Analyzing the future 2035 “Without Project” traffic conditions utilizing the Orange County Transportation Analysis Model (OCTAM), Version 3.4, maintained by the OCTA;
- (5) Evaluating the service condition of the study area intersections with the addition of Project trips; and
- (6) To assess the traffic impacts associated with the Project, traffic conditions for the “With Project” and “Without Project” scenarios were compared under the Existing (2012), Opening Year 2015 and Horizon Year 2035 scenarios, to obtain the change in service levels caused by the Project. For the 11 study intersections, these changes were compared to the thresholds of significance set forth by the County of Orange and the City of Yorba Linda to determine whether significant impacts would occur. Where significant impacts were identified, feasible mitigation measures were identified to reduce such impacts to less than significant levels.

The Esperanza Hills cumulative project, located in close proximity to the Project, is considering an alternative access via Aspen Way as opposed to that Project’s preferred primary access to Via Del Agua/Stonehaven Drive. As such, an additional analysis has been performed for the intersections that could potentially be affected by the change in travel patterns resulting from the proposed access alternative via Aspen Way for the Esperanza Hills cumulative project. The purpose of assessing the access alternative is to identify any additional near-term and long-range cumulative impacts that could potentially occur with the change in proposed access. Accordingly, this traffic analysis includes an assessment of the following traffic scenarios: Existing (2012); Opening Year (2015); Opening Year (2015) Access Alternative via Aspen Way; Horizon Year (2035); and Horizon Year (2035) Access Alternative via Aspen Way traffic conditions.

Again, LOS “D” is the limit of acceptable operations in the County of Orange and City of Yorba Linda. Intersections that operate at an LOS below LOS “D” (i.e., LOS “E” or LOS “F”) are deemed to be operating at insufficient levels.

The following criteria have been utilized to identify significant Project-related traffic impacts:

- If an intersection is projected to operate at an acceptable level of service (i.e., LOS “D” or better) without the project and the addition of project traffic is expected to cause the intersection to operate at an unacceptable level of service (i.e., LOS “E” or “F”), the impact is considered significant.
- If an intersection is projected to operate at an unacceptable level of service (i.e., LOS “E” or LOS “F”) without the project, and the addition of project traffic is expected to cause the ICU value to increase by a value of 0.01 or greater.

A significant cumulative impact would occur when an intersection is projected to operate below the requisite level of service standard under pre-project conditions AND the Project’s measurable increase in traffic (i.e., a project-related traffic increase of 0.01 or greater) contributes to the deficiency. Cumulative traffic impacts are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic impacts, requiring additional improvements to maintain acceptable LOS operations with or without the Project.

(3) Regional Transportation System

The analysis of Project traffic in relation to the regional transportation system is conducted according to the CMP. The regional transportation system analysis determines if Project-generated trips would exceed the CMP thresholds requiring additional analysis of CMP freeway or intersection locations. This Project does not meet the CMP analysis threshold so a CMP analysis is not required.

(4) Sight Distance Analysis

As part of the traffic study conducted for the Project, a sight distance analysis was performed at the project access point on Via del Agua based on the anticipated visibility limitations due to elevation and roadway curvature. The sight distance analysis is utilized to determine whether acceptable stopping/corner sight distances are provided based on the minimum distances defined by the County of Orange roadway standards. The results of the sight distance analysis are included in the discussion of Project impacts below.

(5) Emergency Access

The analysis of emergency access first consists of a review of the County’s policies for providing the minimum number of emergency access points to/from the project site. Second, a determination is made whether the future traffic conditions in the immediate project area and at the nearest adjacent intersections would be subject to adverse traffic conditions. Based on the future traffic conditions, a determination is made whether emergency access to/from the project site would be adversely affected.

b. Significance Thresholds

Appendix G of the CEQA Guidelines and the County of Orange Environmental Analysis Checklist include questions that are used in this EIR as thresholds for determining whether the Project would have a

significant environmental impact on traffic and circulation. Based on the size and scope of the Project and the potential for traffic-related impacts, the threshold of significance identified below is used to assess potential impacts on traffic and circulation. Please refer to Section 6.0, *Other Mandatory CEQA Considerations*, for a discussion of other issues associated with the evaluation of traffic and circulation where the characteristics of the Project made it clear that effects would not be significant and further evaluation in this section was not necessary.

Would the Project:

- Threshold 1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit (refer to Impact Statement 4.14-1);
- Threshold 2: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways (refer to Impact Statement 4.14-2);
- Threshold 4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (refer to Impact Statement 4.14-3);
- Threshold 5: Result in inadequate emergency access (refer to Impact Statement 4.14-4); and
- Threshold 6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities (refer to Impact Statement 4.14-5).

c. Project Design Features

The following Project Design Features (PDFs) are reflected in the Project plans and would be included in the Mitigation Monitoring and Reporting Program (MMRP) for the Project. These features would prevent the occurrence and/or minimize the significance of potential traffic impacts.

- PDF 14-1: All local streets proposed by the Project would meet the minimum street design and size standards of the City of Yorba Linda and the County of Orange. (This PDF to be verified prior to recordation of a subdivision map by the Manager, OC Planning.)
- PDF 14-2: Landscape plans would take into consideration service lines, traffic safety sight line requirements, and structures on adjacent properties to avoid conflicts as trees and shrubs mature. The landscape plans would be approved by the Manager, OC Planning prior to issuance of building permits.

PDF 14-3: The stopping sight distance at Via del Agua and the proposed Street A would meet or exceed the County's Standard Plan No. 1117 requirements for stopping sight distance. (This PDF to be verified prior to recordation of a subdivision map by the Manager, OC Planning.)

In addition to the PDFs listed above, the following discussion provides an overview of the proposed circulation system for the Project.

New local streets planned as part of the Project are illustrated in **Figure 2-6, Master Circulation Plan**, and in **Figure 2-7, Sections of Local Streets A, B and C**, and **Figure 2-8, Sections of Local Streets D, E and F**, which illustrate the specific dimensions for each level of street. These figures are included in Section 2.0, *Project Description*, of this EIR.

Access to the project site would be provided at two points. Access to Planning Area 1 would be provided from Via Del Agua within existing right-of-way between the southerly boundary of Planning Area 1 and Via Del Agua. As part of the approval of existing adjacent residential development, right-of-way was dedicated to allow for construction of a future street connecting the project site with Via Del Agua. Access to Planning Area 2 would be provided from Aspen Way. Aspen Way, a local roadway, extends easterly from San Antonio Road with the paved improvements terminating at the westerly boundary of the project site. The existing dedicated right-of-way for Aspen Way would be improved as part of the project to provide access to Planning Area 2. Both access points on Via del Agua and Aspen Way (on San Antonio Road) are proposed to allow full access. Right-of-way would be dedicated to the City of Yorba Linda for the Aspen Way as well as Street "A" off of Via del Agua.

As part of the Project, the following improvements would be constructed at Street "A" / Via del Agua:

Street "A" / Via del Agua: A stop control would be installed on the southbound approach (north leg). The intersection would be constructed with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach: One shared left-right turn lane.
- Eastbound Approach: One shared left-through lane.
- Westbound Approach: One shared through-right turn lane.

San Antonio Road at Aspen Way – No changes are proposed to the existing traffic controls (3-Way stop) or lane geometrics. Existing lane geometrics are as follows:

- Northbound Approach: One through lane and one de facto right turn lane.
- Southbound Approach: One shared left-through lane.
- Eastbound Approach: N/A
- Westbound Approach: One left turn lane and one de facto right turn lane.

(a) Streets “A” and “B”

Street “A” would serve as the access roadway to Planning Area 1 and extend approximately 150 feet north from a connection at Via del Agua to the southerly boundary of the site. Within the project site, Street “A” would extend north to intersect with Street “B.” Street “B” forms the backbone local street for Planning Area 1 extending east to west and north to south. Streets “A” and “B” are planned with a total right of way of 56 feet and include a 40-foot wide travel area and a 4-foot sidewalk separated from the street by a 4-foot wide landscaped parkway between the curb and sidewalk on both sides of the street. Street “B” would provide for parking on both sides of the street. The design for Streets “A” and “B” is illustrated in Figure 2-7.

(b) Streets “C, D, E, and F”

Two types of local residential streets would connect with Street “B” to serve residential lots within Planning Area 1. Street “C” is planned with a 44-foot wide right of way which includes 30 feet of travel area and a 4-foot wide sidewalk separated from the street by a 4-foot wide landscaped parkway between the curb and sidewalk on both sides of the street. On-street parking would be provided on one side of Street “C.” The design for Street “C” is illustrated on Figure 2-7.

Streets “D” and “E” are planned with a total right of way of 52 feet which includes 36 feet of travel area and a 4-foot wide sidewalk separated from the street by a 4-foot wide landscaped parkway between the curb and sidewalk on both sides of the street. On street parking would be provided on both sides of Streets “D” and “E.” The design for Streets “D” and “E” is illustrated in Figure 2-8.

Aspen Way would serve as the access roadway to Planning Area 2. It would connect to Street “F”, which is planned with a total right of way of 52 feet which includes 36 feet of travel area and a 4-foot wide sidewalk separated from the street by a 4-foot wide landscaped parkway between the curb and sidewalk on both sides of the street. On street parking would be provided on both sides of Street “F.” The design for Street “F” is illustrated in Figure 2-8.

On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project site.

d. Analysis of Project Impacts

CIRCULATION SYSTEM

Threshold	Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?
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4.14-1 Implementation of the Project would contribute traffic to the roadway network during construction and operational activities which could result in potentially significant traffic impacts. Potentially significant construction and operation traffic impacts would be reduced to a less than significant level with implementation of the prescribed mitigation measures.

(1) Construction

The number of construction workers and construction equipment would vary throughout the construction process in order to maintain a reasonable schedule. It is estimated that during Project construction, up to approximately 40 construction workers would be arriving on site per day, generating approximately 80 worker trips per day (40 inbound and 40 outbound). A conservative assumption is made that each employee would drive to and from the site alone each day. The construction workforce would likely be generated from all parts of the Orange County region and is assumed to arrive and depart from all directions. Construction traffic generally occurs prior to the peak period (i.e., 7:00 A.M. – 9:00 A.M. and 4:00 P.M. – 6:00 P.M.). Consistent with the typical construction work day, most employees would arrive to the site between approximately 6:30 and 7:00 A.M. for daily meetings and planning purposes (noting that construction equipment would not be utilized until after 8:00 A.M.). Most workers would be expected to leave the site at approximately 3:30 P.M., although some could leave during the P.M. peak traffic hour. Regardless of the timing during the P.M. hour, the construction employee trips would be short-term and in consideration of the number of potential trips (less than 40), would not substantially affect the performance of the circulation system during peak traffic periods. Further, the number of employee construction trips would be less than the Project, which is described below. Also, parking for employees and non-employee vehicles can be accommodated within the construction area of the Project and not on public streets.

The Project grading plan proposes that grading quantities would balance and that no import or export of soil would be required, with the exception of the potential removal and export of contaminated soil from the on-site oil operations. As such, haul truck trips associated with export/import of soils would be limited, if any at all. Heavy equipment to be utilized on-site during construction include, but is not limited to: flat beds, dozers, scrapers, graders, track hoes, dump trucks, forklifts, cranes, cement trucks, pavers, rollers, water trucks, rolling container trucks and bobcats. Heavy equipment would be delivered and removed from the site throughout the construction phase. As most heavy equipment is typically not an authorized vehicle to be driven on a public roadway, most of the equipment would be delivered and removed from the site via large flatbed trucks. It is anticipated that delivery of heavy equipment would not occur on a daily basis, but rather periodically throughout the construction phase based on need. As such, traffic impacts related to the delivery of heavy equipment and materials would be less than significant.

Project-related construction traffic and activities including worker travel and the delivery of construction materials and vehicles could potentially affect school traffic, pedestrian routes, or transportation safety in the project area. Most notably, Travis Ranch School is located at 5200 Via de la Escuela in Yorba Linda, approximately 0.4 miles south of the project site.

Construction vehicles traveling to and from the project site would generally travel along Yorba Linda Boulevard to Via Del Agua to access Planning Area 1 and along Yorba Linda Boulevard to San Antonio Road to Aspen Way to access Planning Area 2. Construction traffic may impact existing and proposed school traffic traveling along Yorba Linda Boulevard, Via Del Agua, San Antonio Road, and Aspen Way. Section 4.12, *Public Services*, discusses potential construction related traffic impacts to school routes and access. As discussed in Section 4.12, potentially significant construction related traffic impacts regarding school routes and access would be reduced to a less than significant level with implementation of prescribed mitigation measures (Mitigation Measures 4.12-4 to 4.12-7). The prescribed mitigation measures include on-going communication with school administration; presence of crossing guards and usage of temporary traffic control, signage, and/or flaggers; and avoidance of construction vehicles hauling past the schools, except

when school is not in session. To ensure that construction-related traffic does not adversely impact pedestrian safety, including school and non-school routes, Mitigation Measure 4.14-1 has been prescribed for the Project. Implementation of the prescribed mitigation measures would ensure that potentially significant construction traffic-related impacts are reduced to a less than significant level by requiring interim construction period traffic management to allow for construction traffic to blend with existing pedestrian and vehicular traffic patterns with minimal disruption thereby not creating adverse traffic impacts.

Mitigation Measures

Refer to Mitigation Measures 4.12-4 to 4.12-7 in Section 4.12, *Public Services*, in this EIR. The following mitigation measure is also prescribed.

Mitigation Measures 4.14-1 Prior to the start of construction, the Project Applicant, in coordination with the County of Orange, shall devise a Construction Staging and Traffic Management Plan to be implemented during construction of the Project. The Construction Staging and Traffic Management Plan shall identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of construction activities associated with the Project. The Plan shall also consider construction traffic and associated construction traffic noise from nearby simultaneous construction activities and pedestrian safety related to school routes. The Construction Staging and Traffic Management Plan shall be subject to final approval by the County of Orange Public Works Department.

(2) Operation

(a) Project Trip Generation

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. Trip generation rates used to estimate project traffic and a summary of the Project's trip generation are shown on **Table 4.14-5, Project Trip Generation Rates**. The trip generation rates are based upon data collected by the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition, 2008*.

Table 4.14-5

Project Trip Generation Rates

Land Use	ITE Code	Units^a	A.M. Peak Hour			P.M. Peak			Daily
			In	Out	Total	In	Out	Total	
Single Family Residential	210	DU	0.19	0.56	0.75	0.64	0.37	1.01	9.57

^a DU = Dwelling Units

Source: ITE (Institute of Transportation Engineers) Trip Generation Manual, 8th Edition, 2008.

As noted in the Trip Generation Manual, the surveys used to develop the trip generation rates for single family detached housing land included data from a wide variety of units with different sizes, price ranges, locations, and ages. As expected, units that were located farther away from central business districts (CBD) had a higher rate of trip generation per unit than those closer to a CBD. Other factors, such as geographic location and type of adjacent and near-by development may also have an effect on a site's trip generation. Single family detached units have the highest trip generation rate per dwelling unit of all residential uses because they are the largest units in size and have more residents and more vehicles per unit than other residential land uses. The single family detached units are generally located farther away from shopping centers, employment areas and other trip attractors than other residential land uses and they generally have fewer alternate modes of transportation available because they are typically not as concentrated as other residential land uses.

As shown on **Table 4.14-6, Project Trip Generation Summary**, the Project is projected to generate a total of approximately 1,072 trip-ends per day on a typical weekday. The Project is anticipated to generate a total of approximately 84 weekday A.M. peak hour trips and 113 weekday P.M. peak hour trips.

Table 4.14-6**Project Trip Generation Summary**

Project Land Use	Quantity ^a	A.M. Peak Hour			P.M. Peak			Daily
		In	Out	Total	In	Out	Total	
Single Family Residential (PA 1)	95 DU	18	53	71	61	35	96	909
Single Family Residential (PA 2)	17 DU	3	10	13	11	6	17	163
Total		21	63	84	72	41	113	1,072

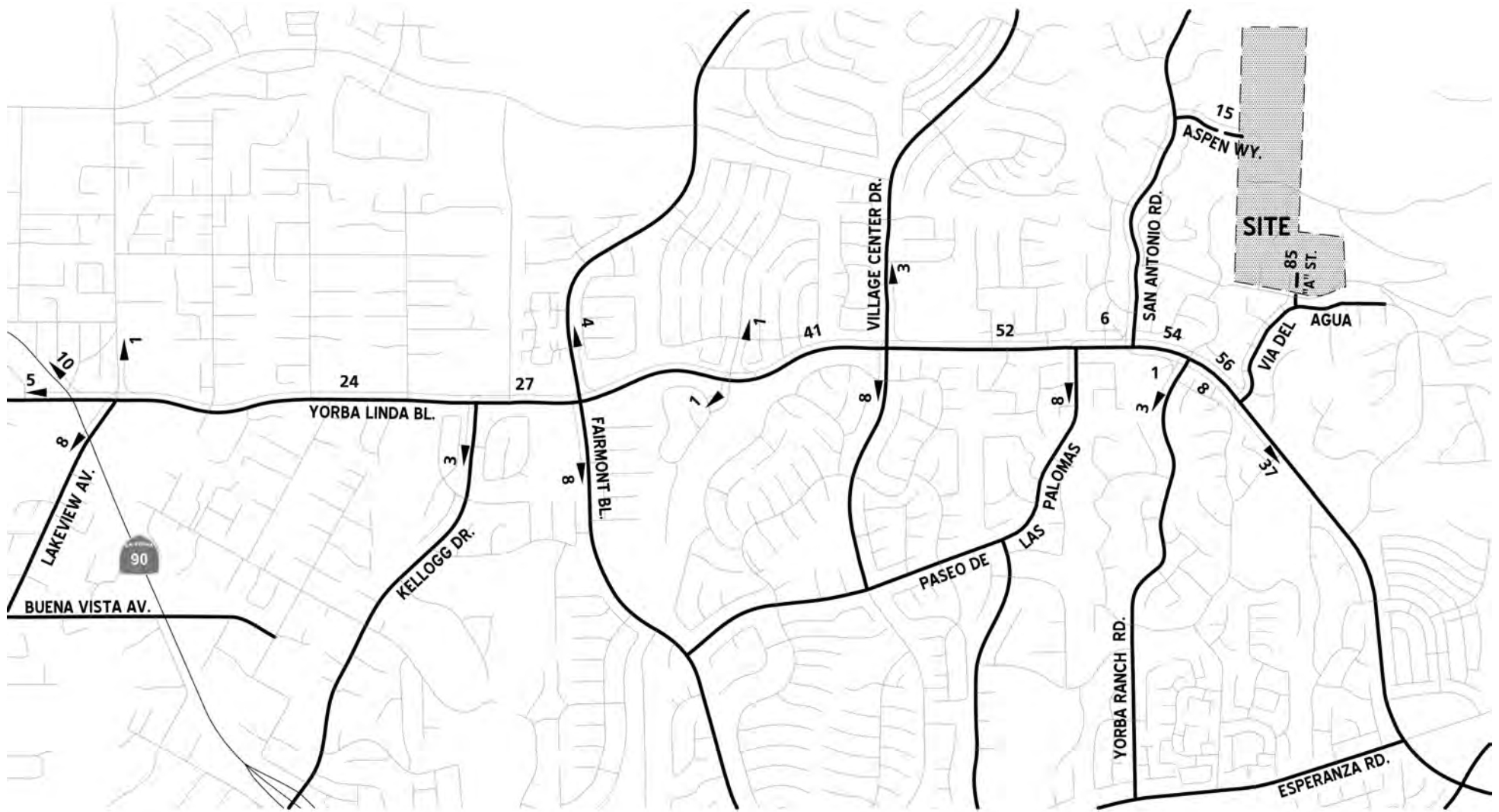
^a DU = Dwelling Units

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

(b) Project Trip Distribution and Assignment

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the project traffic would distribute. The project trip distribution patterns were developed based on anticipated travel patterns to and from the project site for the traffic associated with the proposed residential use. The total volume on each roadway was divided by the total site traffic generation to indicate the percentage of project traffic that would use each component of the regional roadway system in each relevant direction. The project trip distribution patterns are graphically depicted on **Figure 4.14-6, Project Trip Distribution**.

The assignment of traffic from the project area to the adjoining roadway system is based upon the project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified project traffic generation and trip distribution patterns, project ADT volumes for the weekday are shown on **Figure 4.14-7, Project Average Daily Traffic**. Project A.M. and P.M. peak hour volumes are shown on Exhibits 4-3 and 4-4 within Appendix L, respectively.



LEGEND:

10 = PERCENT TO/FROM PROJECT



No scale

Project Trip Distribution

FIGURE

4.14-6

Cielo Vista Project

Source: Urban Crossroads, 2013.



LEGEND:

- 10.0** = VEHICLES PER DAY (1000'S)
- NOM** = NOMINAL, LESS THAN 50 VEHICLES PER DAY



Project Average Daily Traffic

FIGURE

4.14-7

Cielo Vista Project
Source: Urban Crossroads, 2013.

(c) Cumulative Development Traffic

CEQA guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area be included in the assessment of traffic impacts, as appropriate. Based on discussions with City of Yorba Linda and County of Orange Transportation staff, a list of cumulative development projects was developed for inclusion in this analysis. The occupancy levels for Opening Year (2015) traffic conditions for the related projects located within the City of Yorba Linda were developed in consultation with the City of Yorba Linda Planning Department. The cumulative development project land use summary is provided on **Table 4.14-7, Cumulative Development Projects Land Use Summary**. The locations of the cumulative projects are illustrated on **Figure 3-1, Related Projects Map, in Section 3.0, Basis for Cumulative Analysis**, of this EIR.

Per the County of Orange and the City of Yorba Linda's direction, the below listed cumulative development projects for Opening Year (2015) traffic conditions were assumed to be 100% occupied, while 100 percent occupancy was assumed for all listed cumulative development projects in Table 4.14-7 for Horizon Year (2035) traffic conditions:

- Esperanza Hills – 378 single family detached residential dwelling units (100%)²
- North Yorba Linda Estates – 364 single family detached residential dwelling units and 110 condo/townhomes (100%)
- Hover/Bastanchury Holding Company – 48 single family detached residential dwelling units (100%) (only one phase of this project)
- Oakcrest Terrace – 69 apartment units (100%)
- La Floresta Development – 398 medium density residential dwelling units, 787 high density residential dwelling units, 150 mixed-use residential dwelling units, 156,800 square feet of mixed-use commercial, 18-hole golf course, 20,000 square foot community center, 5.30 acre public facility and 75.6 acres of natural open space (100%)

Based on the identified traffic generation and trip distribution patterns associated with each cumulative development project, the cumulative development ADT volumes for the weekday are shown on **Figure 4.14-8, Cumulative Projects Only Average Daily Traffic**. Cumulative development A.M. and P.M. peak hour volumes are shown on Exhibits 4-7 and 4-8 within Appendix L, respectively.

(d) Traffic Forecasts

To provide a comprehensive assessment of potential cumulative impacts, two types of analyses, “buildup” and “buildout”, were performed in support of this work effort. The buildup method was used to approximate the Opening Year (2015) traffic conditions, and is also intended to identify the direct Project-related impacts

² The traffic analysis assumed 378 units as part of the Esperanza Hills Project. As this number is higher than the anticipated 340 units being contemplated for that project, this traffic analysis provides a conservative estimate of traffic impacts.

Table 4.14-7

Cumulative Development Projects Land Use Summary

#	Project	Land Use	Occupancy Percentage	
			2015	2035
County of Orange				
1	Esperanza Hills	378 Single Family Residential Dwelling Units ¹	100%	100%
City of Yorba Linda				
2	North Yorba Linda Estates	364 Single Family Residential Dwelling Units	100% ^a	100%
		110 Condo/Townhomes	100%	100%
3	Hover/Bastanchury Holding Co.	48 Single Family Residential Dwelling Units	100%	100%
		32 Single Family Residential Dwelling Units	0%	100%
		119 Condo/Townhomes	0%	100%
4	Yorba Linda Town Center	1,200 Seat Performing Arts Center	0%	100%
		24,000 Square Foot Library	0%	100%
		5,200 Square Feet of General Office Uses	0%	100%
		61,600 Square Feet of Commercial Retail Uses	0%	100%
		16,400 Square Feet of Restaurant Uses	0%	100%
5	Oakcrest Terrace	69 Apartment Units	100%	100%
6	Canal Annex - Savi Ranch	84 Apartment Units	0%	100%
7	Nixon Archive Site	59 Single Family Residential Dwelling Units	0%	100%
8	SWC Bastanchury / Lakeview	180 Apartment Units	0%	100%
		109 Single Family Residential Dwelling Units	0%	100%
9	Friends Christian High School	1,200 Students	0%	100%
10	Prospect (Greenhouse)	55 Single Family Residential Dwelling Units	0%	100%
11	Wabash & Rose	17 Single Family Residential Dwelling Units	0%	100%
12	Yorba Linda / Prospect	122 Apartment Units	0%	100%
13	Postal Annex SE Lemon & Eureka	5 Single Family Residential Dwelling Units	0%	100%
14	4622 Plumosa	10 Apartment Units	0%	100%
15	Lakeview & Mariposa	149 Apartment Units	0%	100%
16	Palisades at Vista del Verde	143 Condo/Townhomes	0%	100%
CITY OF ANAHEIM				
		1,675 Single Family Residential Dwelling Units	0%	100%
		825 Condo/Townhomes	0%	100%
17	Mountain Park	3,000 Square Foot Convenience Market	0%	100%
		800 Student Elementary School	0%	100%
		15 Acres of Parks	0%	100%

Table 4.14-7 (Continued)

Cumulative Development Projects Land Use Summary

#	Project	Land Use	Occupancy Percentage	
			2015	2035
CITY OF BREA				
		398 Medium Density Residential Dwelling Units	100%	100%
		787 High Density Residential Dwelling Units	100%	100%
		150 Mixed-Use Residential Dwelling Units	100%	100%
18	La Floresta Development	156,800 Square Feet of Mixed-Use Commercial	100%	100%
		18 Hole Golf Course	100%	100%
		20,000 Square Foot Community Center	100%	100%
		5.30 Acre Public Facility (Active Adult)	100%	100%
		75.60 Acres of Natural Open Space	100%	100%

Note: Please refer to **Figure 3-1, Related Projects Map**, in Section 3.0, Basis of Cumulative Analysis, of this EIR for cumulative development projects located within the City of Yorba Linda, City of Anaheim, and City of Brea.

¹ The traffic analysis assumed 378 units as part of the Esperanza Hills Project. As this number is higher than the anticipated 340 units being contemplated for that project, this traffic analysis provides a conservative estimate of traffic impacts.

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc. dated February 22, 2013.

on both the existing and planned near-term circulation system in conjunction with identifying cumulative impacts. The Opening Year (2015) without Project traffic conditions includes background traffic and traffic generated by other cumulative development projects anticipated to be constructed and occupied by Year 2015. The buildup method was also utilized to approximate the Opening Year (2015) with Project traffic condition, and includes background traffic, traffic from other development projects and the traffic generated by the Project. The buildout approach is used to forecast the Horizon Year (2035) without and with Project conditions of the study area. In consultation with the County of Orange and City of Yorba Linda, the Horizon Year (2035) was chosen as the long-range horizon year as it represents a 20-year growth projection beyond the project Opening Year (2015). Further, traffic projections for Horizon Year (2035) were utilized by the OCTAM, Version 3.4, maintained by the OCTA.

(e) Existing Plus Project Conditions

Existing Plus Project Traffic Volume Forecasts

This scenario includes Existing (2012) traffic volumes plus Project traffic. **Figure 4.14-9, Existing Plus Project Average Daily Traffic**, shows the ADT volumes which can be expected from Existing plus Project traffic conditions. Exhibits 5-2 and 5-3 within Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Existing plus Project traffic conditions.

Intersection Operations Analysis

LOS calculations were conducted for the study intersections to evaluate their operations under Existing plus Project conditions with existing roadway and intersection geometrics, with the exception of the Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Existing plus Project conditions only (e.g., intersection turn lane improvements at the Project driveways).

As shown in **Table 4.14-8**, *Existing Plus Project Peak Hour Intersection Level of Service*, all of the study area intersections are anticipated to operate at acceptable LOS during the peak hours with the exception of the intersection of Via del Agua at Yorba Linda Boulevard (LOS “F” during the A.M. and P.M. peak hours). It should be noted that the same intersection is currently operating at unacceptable LOS (i.e., LOS “E” or worse) under Existing (2012) traffic conditions. The addition of Project traffic is anticipated to result in longer delays and unacceptable peak hour operations at the intersection. No additional study area intersections are anticipated to operate at unacceptable LOS with the addition of Project traffic. Exhibit 5-4, within Appendix L, presents the Existing Plus Project Peak Hour Intersection LOS.

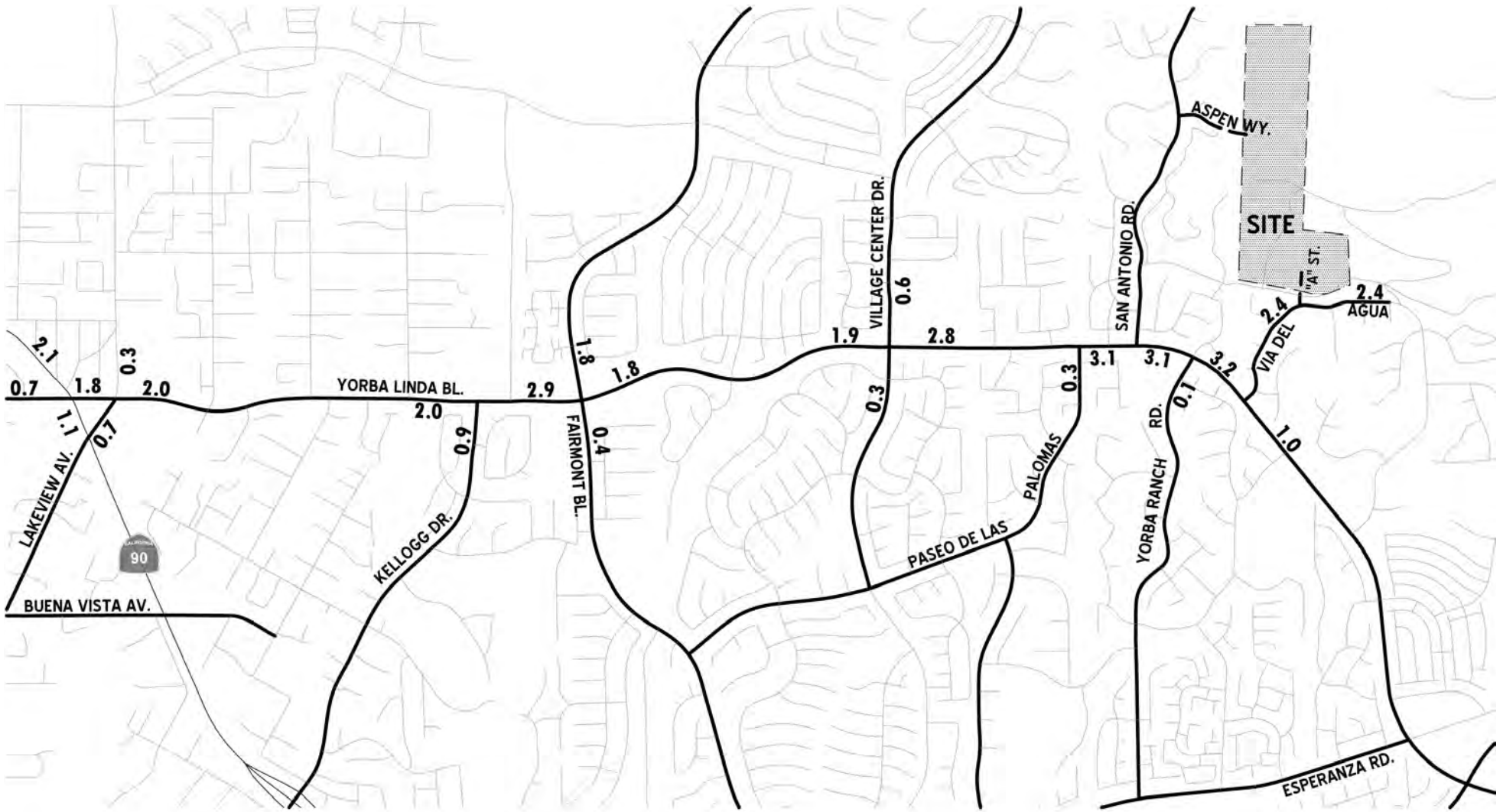
As shown on Table 4.14-4, the intersection of Via del Agua / Yorba Linda Boulevard is currently operating at unacceptable LOS (i.e., LOS “F”) during the A.M. peak hour under Existing (2012) traffic conditions and the addition of Project traffic (as measure by 50 or more peak hour trips) is anticipated to contribute to the deficiency at this intersection. Based on the stated significant threshold for intersections already operating at LOS “E” or LOS “F” under pre-Project conditions, the impact is considered potentially significant. In addition, the addition of project-related traffic would also result in a significant adverse impact on the P.M. peak hour operations of that intersection. The existing level of service (i.e., LOS “D” as indicated in Table 4.14-4) would be degraded to LOS “F” with the addition of the traffic generated by the Project as reflected in Table 4.14-8.

To address this potentially significant traffic impact, Mitigation Measure 4.14-2 has been prescribed. This mitigation measure requires the installation of a traffic signal at the intersection of Via del Agua and Yorba Linda Boulevard. The traffic signal would be located within the City of Yorba Linda. As such, the Project Applicant and/or the Lead Agency (County of Orange) would work collaboratively with the City of Yorba Linda, as appropriate, to ensure the traffic signal is installed prior to issuance of occupancy permits for the Project. The mitigation measure is illustrated in **Figure 4.14-10**, *Off-Site Mitigation Measure*.

The effectiveness of the proposed mitigation measure is presented in **Table 4.14-9**, *Existing Plus Project Peak Hour Intersection Level of Service, with Improvements*. As shown, the installation of the traffic signal at Via del Agua / Yorba Linda Boulevard would result in the LOS being improved from LOS “F” to LOS “A” during both peak hour periods. Thus, with implementation of the prescribed mitigation measure, the potentially significant traffic impact at the intersection of Via del Agua and Yorba Linda Boulevard would be reduced to a less than significant level.

Mitigation Measures

Mitigation Measure 4.14-2 A traffic signal shall be installed prior to issuance of building permits, or as otherwise determined appropriate through consultation with the City of Yorba Linda, for the Project at the intersection of Via del Agua and Yorba Linda Boulevard. The Project



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



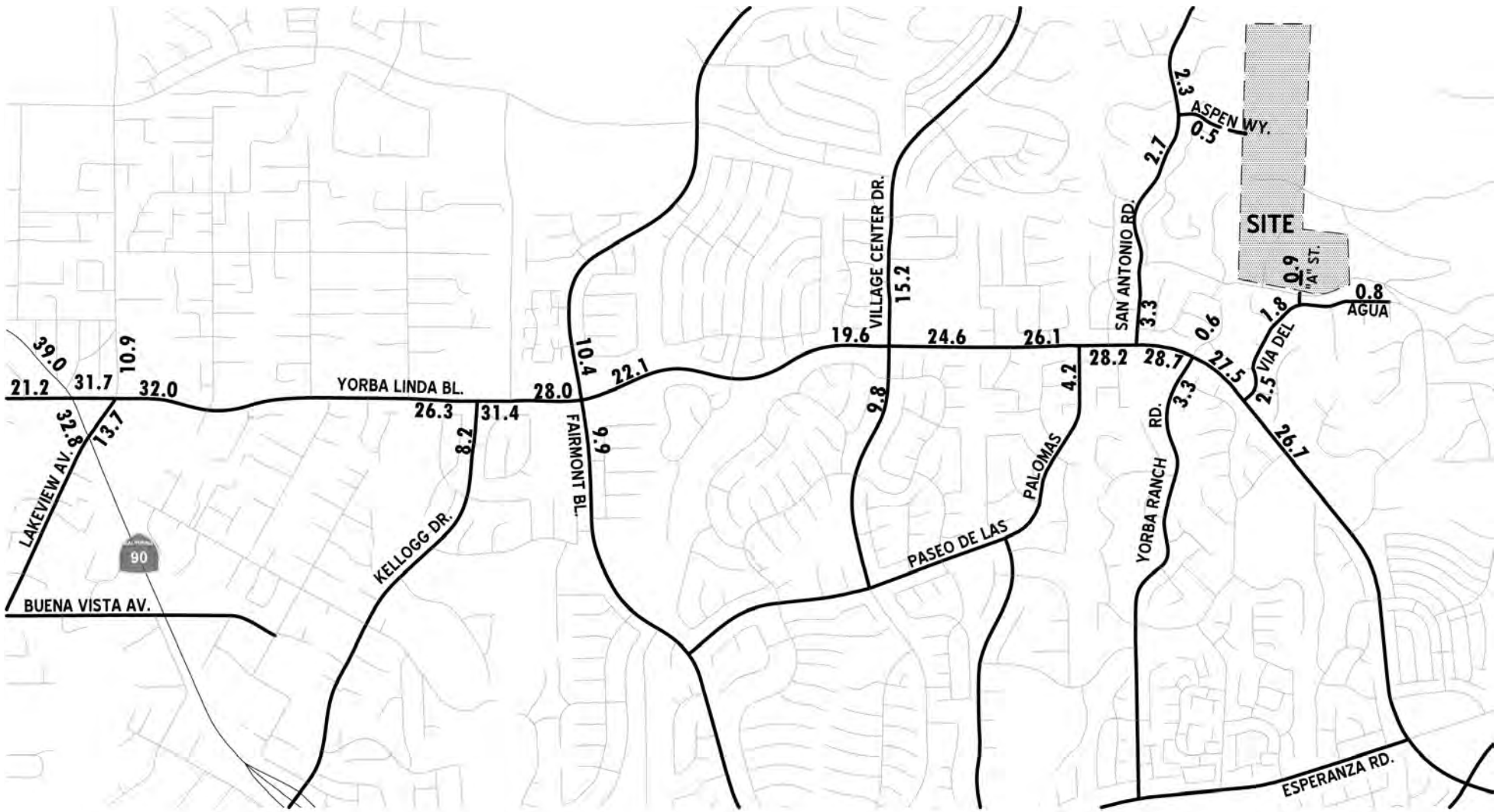
No scale

Cumulative Projects Only Average Daily Traffic (ADT)

FIGURE

4.14-8

Cielo Vista Project
Source: Urban Crossroads, 2013.



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



No scale

Existing Plus Project Average Daily Traffic

FIGURE

4.14-9

Cielo Vista Project
Source: Urban Crossroads, 2013.

Table 4.14-8

Existing Plus Project Peak Hour Intersection Level of Service

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
1	Imperial Hwy. / Yorba Linda Bl.	TS	1	3	0	2	3	0	1	3	0	1	2	2>	0.65	B	0.73	C
2	Lakeview Av. / Yorba Linda Bl.	TS	1	2	1>	1	2	0	1	3	0	1	3	0	0.56	A	0.58	A
3	Kellogg Dr. / Yorba Linda Bl.	TS	1	0	1>	0	0	0	0	3	0	2	3	0	0.43	A	0.60	A
4	Fairmont Bl. / Yorba Linda Bl.	TS	2	2	0	1	1	2>	1	3	1>	1	3	0	0.58	A	0.47	A
5	Village Center Dr. / Yorba Linda Bl.	TS	1	2	d	2	2	0	1	2	d	1	2	1	0.46	A	0.53	A
6	Paseo del las Palomas / Yorba Linda Bl.	TS	1	0	1	0	0	0	0	2	d	1	2	0	0.43	A	0.54	A
7	San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(8.2)	A	(8.2)	A
8	San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.48	A	0.46	A
9	Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.44	A	0.48	A
10	Street "A" / Via del Agua	CSS	0	0	0	0	1	0	0	1	0	0	1	0	(9.0)	A	(8.6)	A
11	Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = De facto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

Table 4.14-9

Existing Plus Project Peak Hour Intersection Level of Service, with Improvements

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a								A.M. Peak Hour		P.M. Peak Hour					
			Northbound			Southbound			Eastbound		Westbound		ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS		
11	Via del Agua / Yorba Linda Bl.																	
	- Without Improvements	CSS	0	0	0	0	1	0	1	2	0	0	2	D	(>50.0)	F	(>50.0)	F
	- With Improvements	TS	0	0	0	0	1	0	1	2	0	0	2	D	0.48	A	0.45	A

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = De facto Right Turn Lane; 1 = Improvement

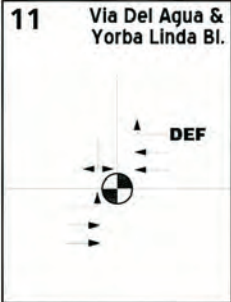
^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.



LEGEND:

-  = TRAFFIC SIGNAL
-  = ALL WAY STOP
-  = STOP SIGN
- DEF** = DEFACTO RIGHT TURN



N

 No scale

Off-site Mitigation Measures

Cielo Vista Project
 Source: Urban Crossroads, 2013.

FIGURE

4.14-10

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Applicant shall pay the City of Yorba Linda its fair share cost toward installation of a traffic signal, install the traffic signal, or pay the full cost of the signal installation, with the latter two alternatives subject to reimbursement, as agreed to by the Project Applicant and the City of Yorba Linda.

(f) Opening Year (2015) Without and With Project Conditions

Opening Year (2015) Without Project Traffic Volume Forecasts

This scenario includes existing (2012) traffic volumes plus an ambient growth factor of 3.03% plus traffic from pending and approved, but not yet constructed known development projects in the area. The weekday ADT volumes which can be expected for Opening Year (2015) without Project traffic conditions are shown on **Figure 4.14-11**, *Opening Year (2015) Without Project Average Daily Traffic*. Exhibits 6-2 and 6-3 within Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Opening Year (2015) without Project traffic conditions.

Opening Year (2015) With Project Traffic Volume Forecasts

This scenario includes existing (2012) traffic volumes, an ambient growth factor of 3.03 percent, traffic from pending and approved but not yet constructed known development projects in the area and the addition of project traffic. The weekday ADT volumes which can be expected for Opening Year (2015) with project traffic conditions are shown on **Figure 4.14-12**, *Opening Year (2015) With Project Average Daily Traffic*. Exhibits 6-5 and 6-6 within Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Opening Year (2015) with Project traffic conditions.

Intersection Operations Analysis

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year (2015) conditions with existing roadway and intersection geometrics. As shown in **Table 4.14-10**, *Opening Year (2015) Without Project Peak Hour Intersection Level of Service*, all of the study area intersections are anticipated to operate at acceptable LOS during the peak hours without Project traffic conditions, with the exception of the intersection of Via del Agua at Yorba Linda Boulevard (LOS "F" during the A.M. and P.M. peak hours). It should be noted that this finding is consistent with Existing (2012) Plus Project traffic conditions (refer to Table 4.14-8).

As shown on **Table 4.14-11**, *Opening Year (2015) With Project Peak Hour Intersection Level of Service*, the addition of Project traffic is anticipated to worsen the delay at the intersection of Via del Agua at Yorba Linda Boulevard. No additional study area intersections are anticipated to operate at unacceptable LOS with the addition of project traffic. Exhibit 6-7 within Appendix L, presents the study area intersection LOS for Opening Year (2015) without Project conditions and Exhibit 6-8 Appendix L, presents the study area intersection LOS for Opening Year (2015) with Project conditions.

As shown on Table 4.14-11, although the intersection of Via del Agua/Yorba Linda Boulevard would operate at unacceptable LOS (LOS "F") during the A.M. and P.M. peak hour under the 2015 Without Project traffic conditions, the addition of project traffic (as measured by 50 or more peak hour trips) is anticipated to contribute to the deficiency at this intersection during both the A.M. and P.M. peak hours. Based on the stated significance threshold for intersections already operating at LOS "E" or LOS "F" under pre-Project conditions, the impact is considered significant.

To address this potentially significant traffic impact, Mitigation Measure 4.14-2 has been prescribed above. This mitigation measure requires the installation of a traffic signal at the intersection of Via del Agua and Yorba Linda Boulevard. The traffic signal would be located within the City of Yorba Linda. As such, the Project Applicant and/or the Lead Agency (County of Orange) would work collaboratively with the City of Yorba Linda, as appropriate, to ensure the traffic signal is installed prior to issuance of occupancy permits for the Project. The mitigation measure is illustrated in Figure 4.14-10.

The effectiveness of the proposed mitigation measure is presented in **Table 4.14-12, Opening Year (2015) With Project Peak Hour Intersection Level of Service, with Improvements**, for Opening Year (2015) with Project traffic conditions. As shown, the installation of the traffic signal at Via del Agua / Yorba Linda Boulevard would result in the LOS being improved from LOS "F" to LOS "B". Thus, with implementation of the prescribed mitigation measure, the potentially significant traffic impact at the intersection of Via del Agua and Yorba Linda Boulevard would be reduced to a less than significant level.

Mitigation Measures

Refer to Mitigation Measure 4.14-2. No additional mitigation measures are necessary.

(g) Horizon Year (2035) Without and With Project Conditions

The analysis was performed by application of the OCTAM, Version 3.4, maintained by the OCTA to develop future traffic forecast volumes in the vicinity of the project site. OCTAM is the traffic forecasting modeling tool used by the City of Yorba Linda and is based on and consistent with the SCAG regional transportation model, and therefore, incorporates adopted regional growth projections.

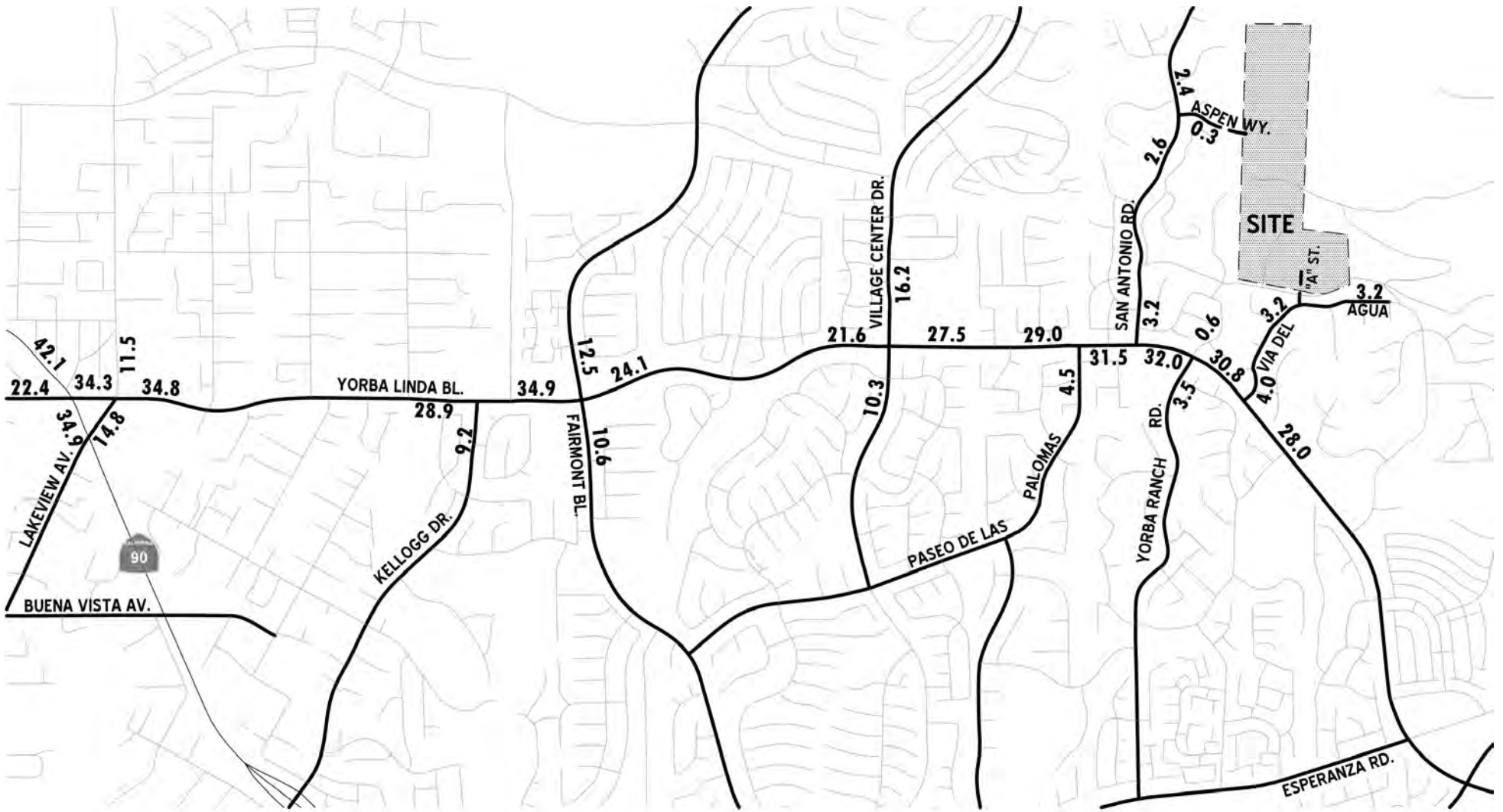
The traffic forecasts reflect the area-wide growth anticipated between existing conditions and Horizon Year (2035) conditions. In most instances, the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the Horizon Year (2035) peak hour forecasts were refined using the model derived long-range forecasts, along with Opening Year (2015) with Project peak hour turning movement volumes by ensuring a minimum growth of ten (10) percent above the Opening Year (2015) with Project forecasts as a part of the refinement process. It should also be noted that the approved or pending developments identified by the City have also been included in conjunction with traffic associated with the Project.

Horizon Year (2035) Without Project Traffic Volume Forecasts

The weekday ADT volumes which can be expected for Horizon Year (2035) without Project traffic conditions are shown on **Figure 4.14-13, Horizon Year (2035) Without Project Average Daily Traffic**. Exhibits 7-2 and 7-3 in Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Horizon Year (2035) without Project traffic conditions.

Horizon Year (2035) With Project Traffic Volume Forecasts

The weekday ADT volumes which can be expected for Horizon Year (2035) with Project traffic conditions are shown on **Figure 4.14-14, Horizon Year (2035) With Project Average Daily Traffic**. Exhibits 7-5 and 7-6 in Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Horizon Year (2035) with Project traffic conditions.



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



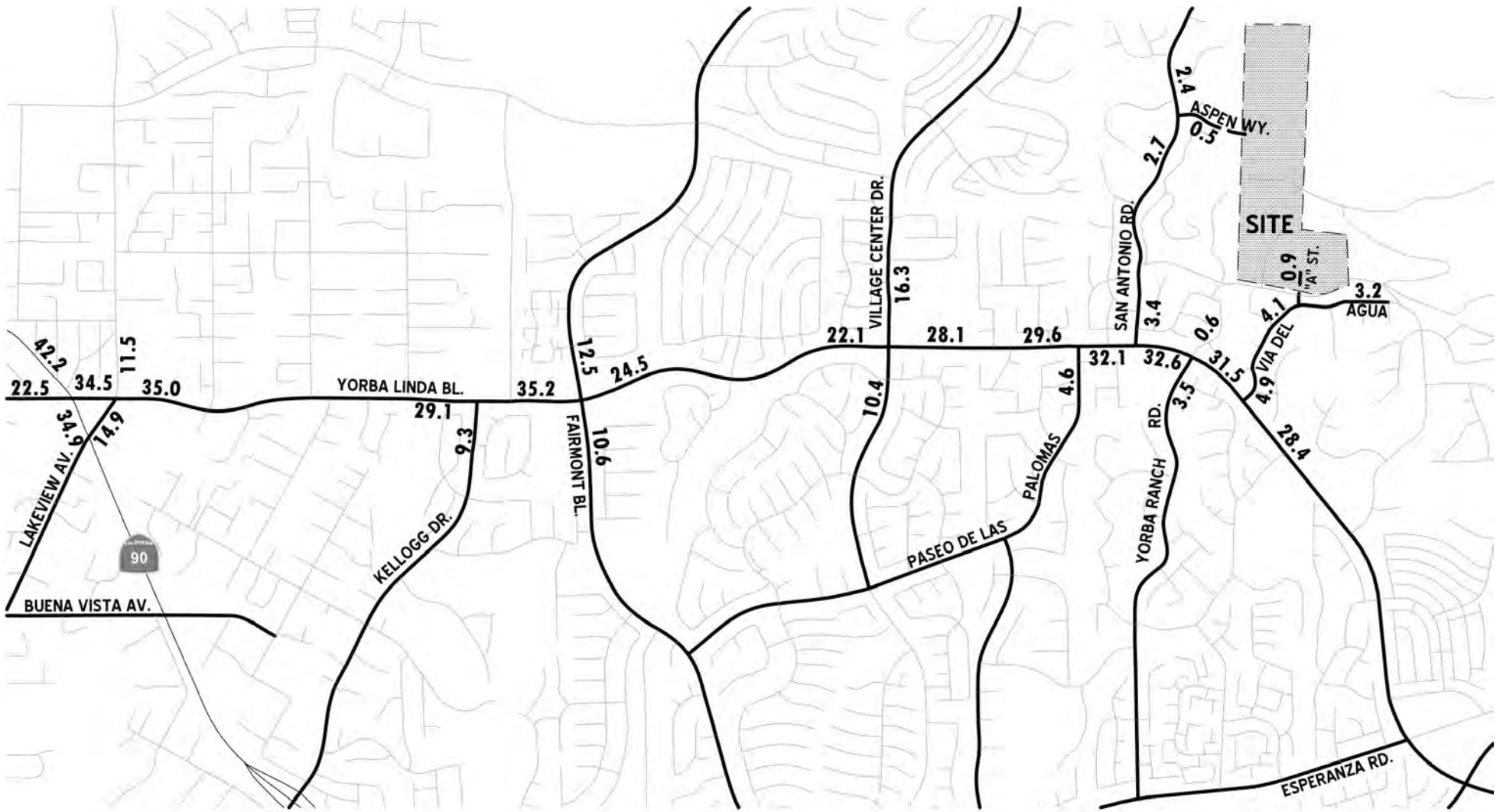
No scale

Opening Year (2015) Without Project Average Daily Traffic

FIGURE

4.14-11

Cielo Vista Project
Source: Urban Crossroads, 2013.



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



No scale

Opening Year (2015) With Project Average Daily Traffic

FIGURE

4.14-12

Cielo Vista Project
Source: Urban Crossroads, 2013.

Table 4.14-10

Opening Year (2015) Without Project Peak Hour Intersection Level of Service

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
1	Imperial Hwy. / Yorba Linda Bl.	TS	1	3	0	2	3	0	1	3	0	1	2	2>	0.68	B	0.78	C
2	Lakeview Av. / Yorba Linda Bl.	TS	1	2	1>	1	2	0	1	3	0	1	3	0	0.59	A	0.63	B
3	Kellogg Dr. / Yorba Linda Bl.	TS	1	0	1>	0	0	0	0	3	0	2	3	0	0.47	A	0.68	B
4	Fairmont Bl. / Yorba Linda Bl.	TS	2	2	0	1	1	2>	1	3	1>	1	3	0	0.63	B	0.55	A
5	Village Center Dr. / Yorba Linda Bl.	TS	1	2	d	2	2	0	1	2	d	1	2	1	0.50	A	0.58	A
6	Paseo del las Palomas / Yorba Linda Bl.	TS	1	0	1	0	0	0	0	2	d	1	2	0	0.47	A	0.61	B
7	San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(8.2)	A	(8.2)	A
8	San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.53	A	0.51	A
9	Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.48	A	0.54	A
10	Street "A" / Via del Agua		Future Intersection															
11	Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., DATED February 22, 2013.

Table 4.14-11

Opening Year (2015) With Project Peak Hour Intersection Level of Service

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a										A.M. Peak Hour		P.M. Peak Hour			
			Northbound			Southbound			Eastbound			Westbound	ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS		
1	Imperial Hwy. / Yorba Linda Bl.	TS	1	3	0	2	3	0	1	3	0	1	2	2>	0.69	B	0.79	C
2	Lakeview Av. / Yorba Linda Bl.	TS	1	2	1>	1	2	0	1	3	0	1	3	0	0.60	A	0.63	B
3	Kellogg Dr. / Yorba Linda Bl.	TS	1	0	1>	0	0	0	0	3	0	2	3	0	0.48	A	0.69	B
4	Fairmont Bl. / Yorba Linda Bl.	TS	2	2	0	1	1	2>	1	3	1>	1	3	0	0.63	B	0.55	A
5	Village Center Dr. / Yorba Linda Bl.	TS	1	2	d	2	2	0	1	2	d	1	2	1	0.51	A	0.59	A
6	Paseo del las Palomas / Yorba Linda Bl.	TS	1	0	1	0	0	0	0	2	d	1	2	0	0.48	A	0.62	B
7	San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(8.2)	A	(8.2)	A
8	San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.54	A	0.52	A
9	Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.49	A	0.55	A
10	Street "A" / Via del Agua	CSS	0	0	0	0	<u>1</u>	0	0	1	0	0	1	0	(10.2)	B	(9.2)	A
11	Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., DATED February 22, 2013.

Table 4.14-12

Opening Year (2015) With Project Peak Hour Intersection Level of Service, with Improvements

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
11	Via del Agua / Yorba Linda Bl.																	
	Without improvements	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F
	With improvements	TS	0	0	0	0	1	0	1	2	0	0	2	d	0.67	B	0.64	B

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).
 L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

Intersection Operations Analysis

LOS calculations were conducted for the study intersections to evaluate their operations under Horizon Year (2035) without Project traffic conditions. **Table 4.14-13, *Horizon Year (2035) Without Project Peak Hour Intersection Level of Service***, displays the Horizon Year (2035) Without Project Peak Hour Intersection LOS. As shown in the table, all of the study area intersections are anticipated to operate at an acceptable LOS for without Project traffic conditions, with the exception of Via del Agua / Yorba Linda Boulevard, which would operate at LOS “F” during A.M. and P.M. peak hours.

Table 4.14-14, *Horizon Year (2035) With Project Peak Hour Intersection Level of Service*, displays the Horizon Year (2035) With Project Peak Hour Intersection LOS. The addition of project traffic is not anticipated to worsen the LOS at any of the study area intersections. It should be noted that the traffic signal at the intersection of Via del Agua at Yorba Linda Boulevard has been assumed to be in place for Horizon Year (2035) with Project traffic conditions as it was identified as a Project related mitigation measure under Opening Year (2015) with Project traffic conditions.

Future lane configurations at study area intersections within the City of Yorba Linda were determined based on discussions with City of Yorba Linda engineering staff regarding planned future roadway improvements.

The planned and committed improvements were identified as currently funded and programmed for construction. It should be noted that the committed improvements shown on Table 4.14-13 and Table 4.14-14 are consistent with the committed improvements assumed in the Yorba Linda Town Center Specific Plan Traffic Impact Analysis (dated November 15, 2010, prepared by Urban Crossroads, Inc.) and the Yorba Linda Housing Element Traffic Impact Analysis (dated January 27, 2011, prepared by Urban Crossroads, Inc.). Tables 4.14-13 and 4.14-14 also summarize the peak hour operations with the planned committed improvements, which indicate that both intersections of Imperial Highway and Lakeview Avenue at Yorba Linda Boulevard would operate at acceptable LOS.

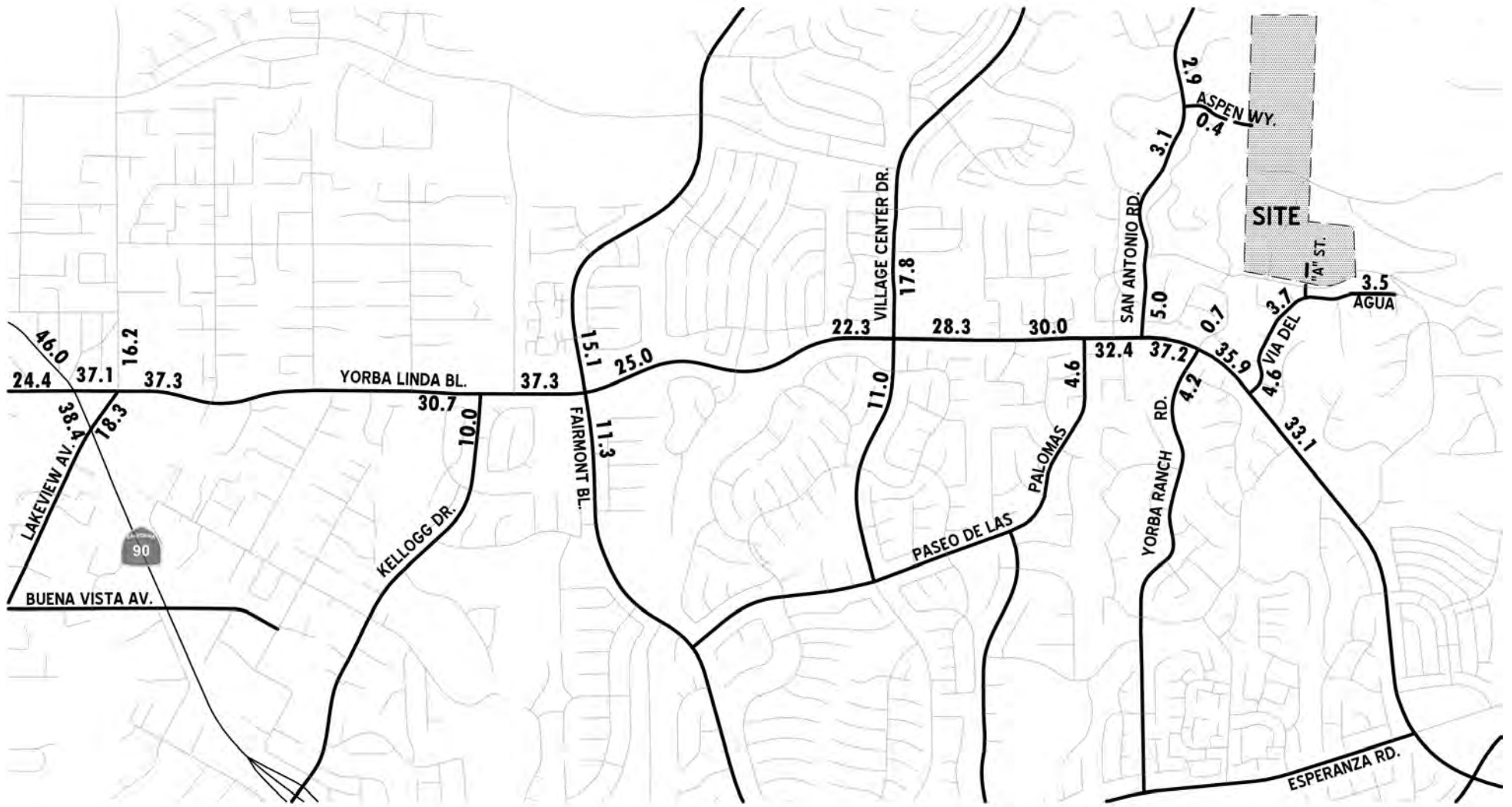
Based on the threshold criteria above, since the intersection of Via del Agua and Yorba Linda Boulevard would operate at a LOS “B” under future with Project conditions, traffic impacts under the Horizon Year (2035) would be less than significant.

(h) Alternative Access Via Aspen Way for Esperanza Hills Project

As stated above, the adjacent Esperanza Hills related project, is considering an alternative access route via Aspen Way as opposed to the project’s preferred access to Via Del Agua / Stonehaven Drive. As such, an additional analysis has been performed for the intersections that could potentially be affected by the change in travel patterns resulting from the proposed access alternative via Aspen Way for the Esperanza Hills project. The purpose of assessing the access alternative is to identify any additional near-term and long-range cumulative impacts that could potentially occur with the change in proposed access.

Opening Year (2015) Without Traffic Volume Forecasts

The weekday ADT volumes which can be expected for Opening Year (2015) without Project traffic conditions are shown on **Figure 4.14-15, *Opening Year (2015) Without Project - Access Alternative Via Aspen Way Average Daily Traffic***. Exhibits 6-10 and 6-11 within Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Opening Year (2015) without Project traffic conditions.



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



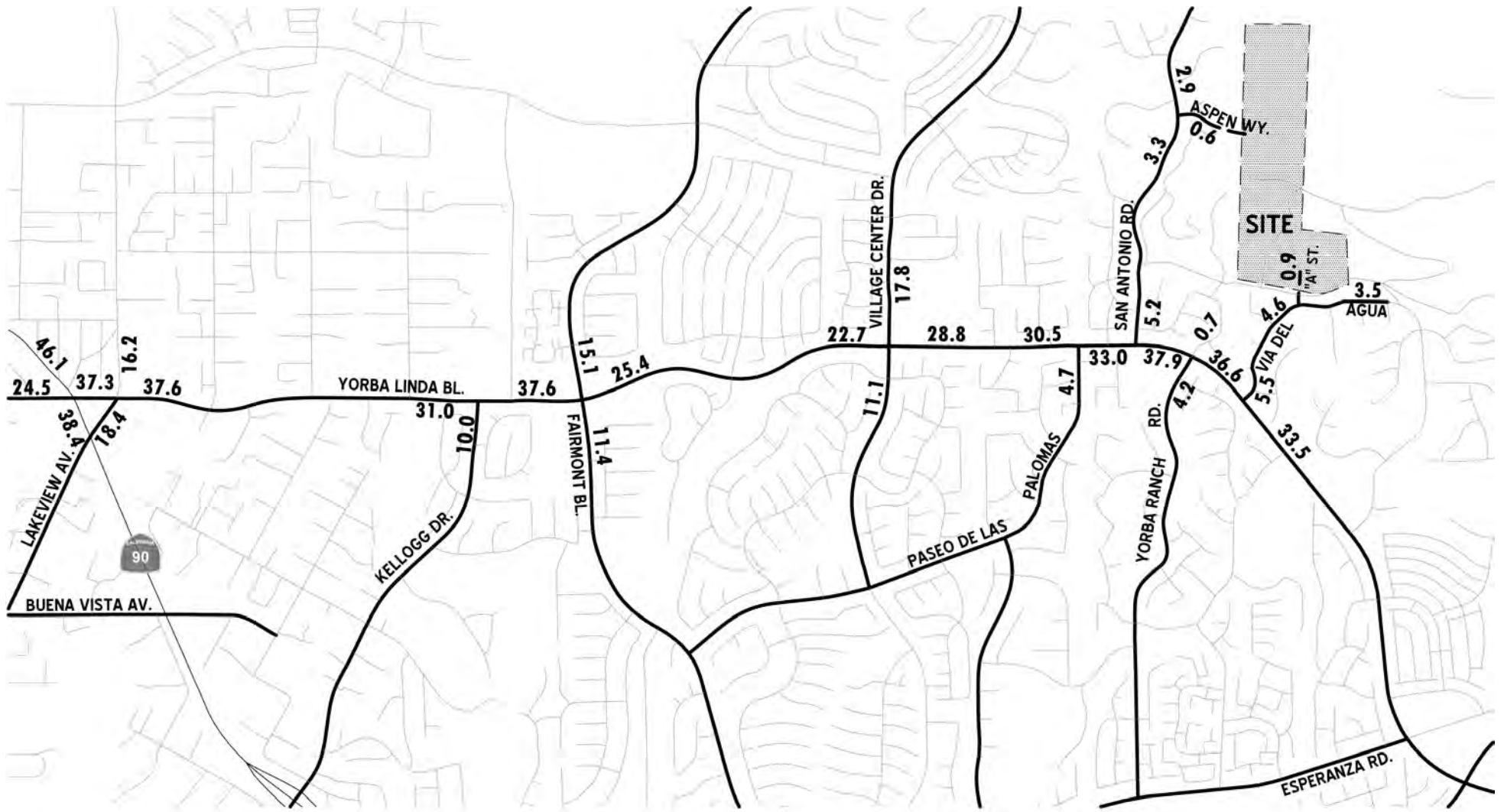
No scale

Horizon Year (2035) Without Project Average Daily Traffic

FIGURE

4.14-13

Cielo Vista Project
Source: Urban Crossroads, 2013.



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



No scale

Horizon Year (2035) With Project Average Daily Traffic

FIGURE

4.14-14

Cielo Vista Project
Source: Urban Crossroads, 2013.

Table 4.14-13
Horizon Year (2035) Without Project Peak Hour Intersection Level of Service

Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour		
		Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS	
Imperial Hwy. / Yorba Linda Bl.																		
- Existing Lane Configuration	TS	1	3	0	2	3	0	1	3	0	1	2	2>	0.81	D	0.87	D	
- Committed Improvements ^d	TS	1	3	0	2	3	0	1	3	0	2	3	2>	0.74	C	0.81	D	
Lakeview Av. / Yorba Linda Bl.																		
- Existing Lane Configuration	TS	1	2	1>	1	2	0	1	3	0	1	3	0	0.87	D	0.74	C	
- Committed Improvements ^d	TS	1	2	1>	1	2	0	2	3	0	2	3	0	0.71	C	0.70	B	
Kellogg Dr. / Yorba Linda Bl.	TS	1	0	1>	0	0	0	0	3	0	2	3	0	0.60	A	0.74	C	
Fairmont Bl. / Yorba Linda Bl.	TS	2	2	0	1	1	2>	1	3	1>	1	3	0	0.70	C	0.72	C	
Village Center Dr. / Yorba Linda Bl.	TS	1	2	d	2	2	0	1	2	d	1	2	1	0.62	B	0.61	B	
Paseo del las Palomas / Yorba Linda Bl.	TS	1	0	1	0	0	0	0	2	d	1	2	0	0.48	A	0.61	B	
San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(8.5)	A	(8.5)	A	
San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.56	A	0.55	A	
Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.56	A	0.62	B	
Street "A" / Via del Agua																		
Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F	

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = De facto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

^d Future lane configurations at study area intersections within the City of Yorba Linda were determined based on discussions with City of Yorba Linda engineering staff regarding planned future roadway. It should also be noted that the committed improvements are consistent with Both the Yorba Linda Town Center Traffic Impact Analysis and the City of Yorba Linda Housing Element Traffic Impact Analysis.

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc. dated February 22, 2013.

Table 4.14-14
Horizon Year (2035) With Project Peak Hour Intersection Level of Service

Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour		
		Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS	
Imperial Hwy. / Yorba Linda Bl.																		
- Existing Lane Configuration	TS	1	3	0	2	3	0	1	3	0	1	2	2>	0.81	D	0.87	D	
- Committed Improvements ^d	TS	1	3	0	2	3	0	1	3	0	2	3	2>	0.74	C	0.81	D	
Lakeview Av. / Yorba Linda Bl.																		
- Existing Lane Configuration	TS	1	2	1>	1	2	0	1	3	0	1	3	0	0.87	D	0.74	C	
- Committed Improvements ^d	TS	1	2	1>	1	2	0	2	3	0	2	3	0	0.72	C	0.70	C	
Kellogg Dr. / Yorba Linda Bl.	TS	1	0	1>	0	0	0	0	3	0	2	3	0	0.60	B	0.74	C	
Fairmont Bl. / Yorba Linda Bl.	TS	2	2	0	1	1	2>	1	3	1>	1	3	0	0.70	C	0.72	C	
Village Center Dr. / Yorba Linda Bl.	TS	1	2	d	2	2	0	1	2	d	1	2	1	0.63	B	0.62	B	
Paseo del las Palomas / Yorba Linda Bl.	TS	1	0	1	0	0	0	0	2	d	1	2	0	0.49	A	0.63	B	
San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(8.5)	A	(8.5)	A	
San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.58	A	0.57	A	
Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.57	A	0.63	B	
Street "A" / Via del Agua	CSS	0	0	0	0	1	0	0	1	0	0	1	0	(10.3)	B	(9.2)	A	
Via del Agua / Yorba Linda Bl.	TS	0	0	0	0	1	0	1	2	0	0	2	d	0.69	B	0.68	B	

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

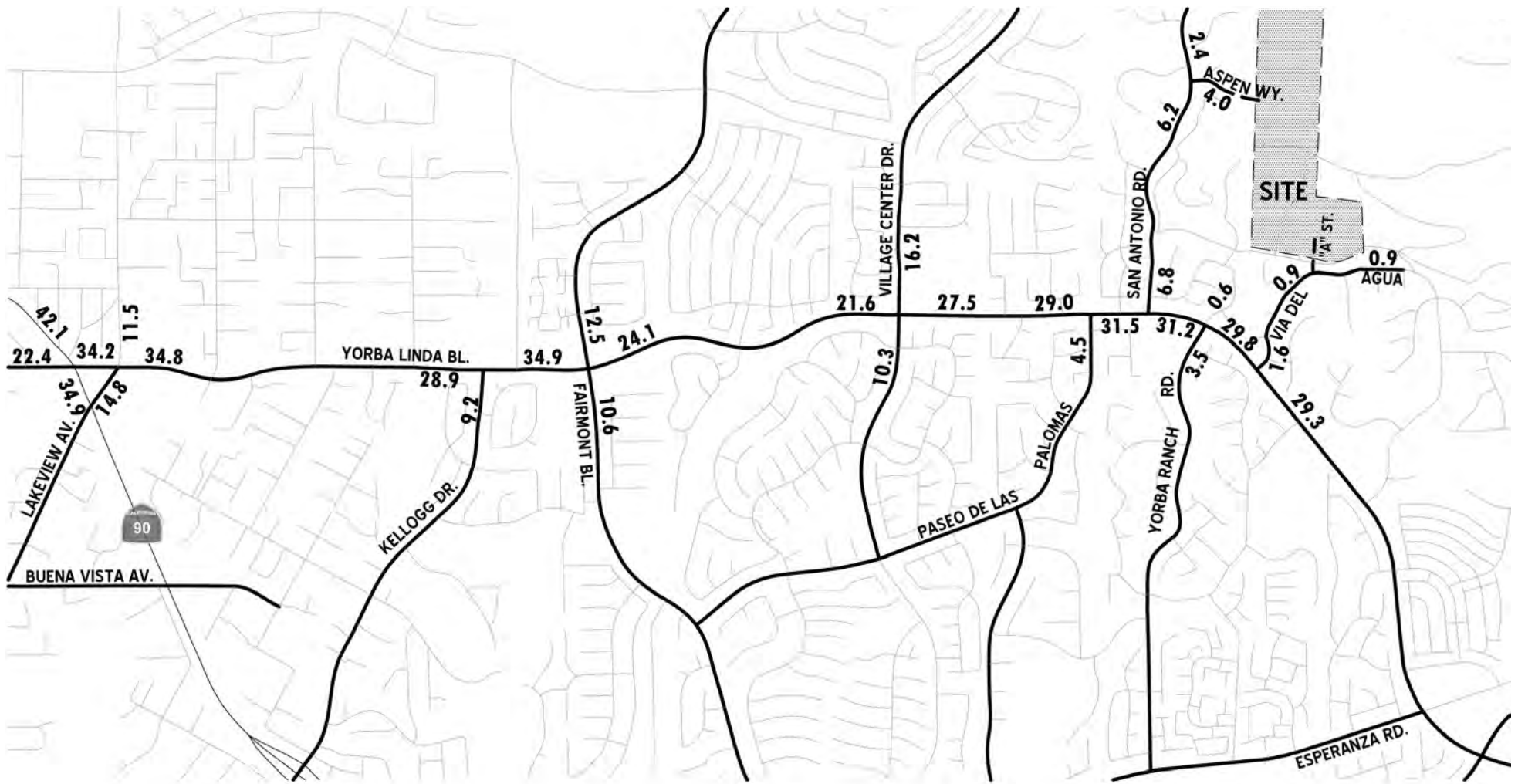
^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

^d Future lane configurations at study area intersections within the City of Yorba Linda were determined based on discussions with City of Yorba Linda engineering staff regarding planned future roadway. It should also be noted that the committed improvements are consistent with both The Yorba Linda Town Center Traffic Impact Analysis and the City of Yorba Linda Housing Element Traffic Impact Analysis.

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



**Opening Year (2015) Without Project
Access Alternative Via Aspen Way Average Daily Traffic**

Cielo Vista Project

Source: Urban Crossroads, 2013.

FIGURE

4.14-15

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Opening Year (2015) With Traffic Volume Forecasts

The weekday ADT volumes which can be expected for Opening Year (2015) with Project traffic conditions, under the access alternative via Aspen Way are shown on **Figure 4.14-16**, *Opening Year (2015) With Project - Access Alternative Via Aspen Way Average Daily Traffic*. Exhibits 6-13 and 6-14 within Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Opening Year (2015) with Project traffic conditions.

Opening Year (2015) Intersection Operations Analysis

As shown in **Table 4.14-15**, *Opening Year (2015) Without Project - Conditions Access Alternative Via Aspen Way Peak Hour Intersection Level of Service*, all of the study area intersections are anticipated to operate at acceptable LOS during the peak hours for without Project traffic conditions, with the exception of the intersection of Via del Agua at Yorba Linda Boulevard (LOS "F" during the A.M. and LOS "E" during the P.M. peak hours).

As shown on **Table 4.14-16**, *Opening Year (2015) With Project Conditions - Access Alternative Via Aspen Way Peak Hour Intersection Level of Service*, the addition of Project traffic is anticipated to worsen the delay at the intersection of Via del Agua at Yorba Linda Boulevard during the P.M. peak hour. No additional study area intersections are anticipated to operate at unacceptable LOS with the addition of Project Traffic. Exhibit 6-15 within Appendix L, presents the study area intersection LOS for Opening Year (2015) without Project conditions, with access alternative via Aspen Way. Exhibit 6-16 within Appendix L, presents the study area intersection LOS for Opening Year (2015) with Project conditions, with access alternative via Aspen Way.

To address this potentially significant traffic impact, Mitigation Measure 4.14-2 has been prescribed. This mitigation measure requires the installation of a traffic signal at the intersection of Via del Agua and Yorba Linda Boulevard. The traffic signal would be located within the City of Yorba Linda. As such, the Project Applicant and/or the Lead Agency (County of Orange) would work collaboratively with the City of Yorba Linda, as appropriate, to ensure the traffic signal is installed prior to issuance of occupancy permits for the Project. The mitigation measure is illustrated in Figure 4.14-10.

The effectiveness of the proposed mitigation measure is presented in **Table 4.14-17** *Opening Year (2015) With Project Conditions - Access Alternative Via Aspen Way Peak Hour Intersection Level of Service, with Improvements*. As shown, the installation of the traffic signal at Via del Agua / Yorba Linda Boulevard would result in the LOS being reduced from LOS "F" to LOS "A". Thus, with implementation of the prescribed mitigation measure, the potentially significant traffic impact at the intersection of Via del Agua and Yorba Linda Boulevard would be reduced to a less than significant level.

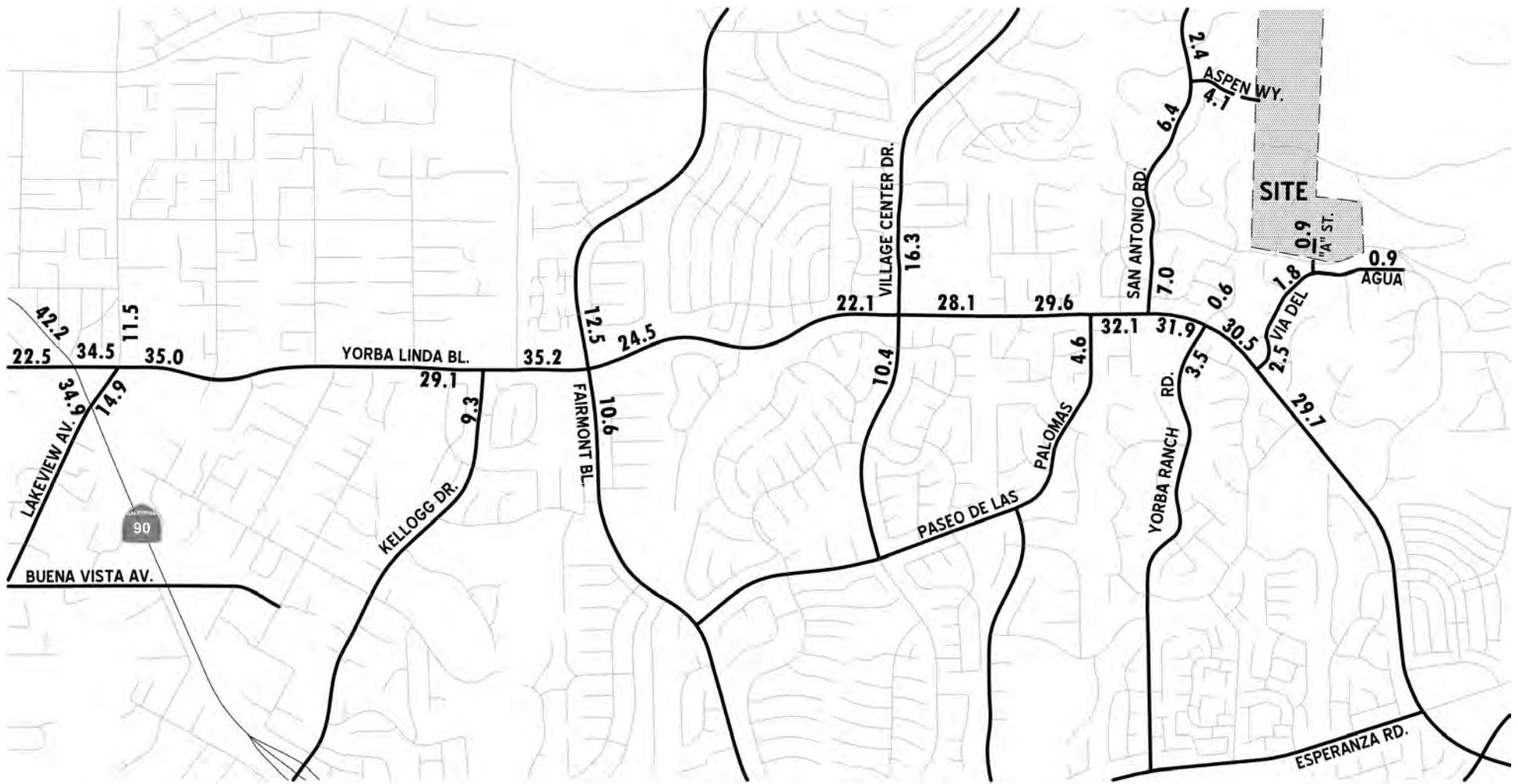
Mitigation Measures

Refer to Mitigation Measure 4.14-2. No additional mitigation measures are necessary.

Horizon Year (2035) Without Traffic Volume Forecasts

The weekday ADT volumes which can be expected for Horizon Year (2035) without Project traffic conditions are shown on **Figure 4.14-17**, *Horizon Year (2035) Without Project - Access Alternative Via Aspen Way Average Daily Traffic*. Exhibits 7-10 and 7-11 within Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Horizon Year (2035) without Project access alternative via Aspen Way.

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LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



**Opening Year (2015) With Project
Access Alternative Via Aspen Way Average Daily Traffic**

Cielo Vista Project

Source: Urban Crossroads, 2013.

FIGURE

4.14-16

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Table 4.14-15

**Opening Year (2015) Without Project Conditions –
Access Alternative Via Aspen Way Peak Hour Intersection Level of Service**

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
7	San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(11.3)	B	(10.9)	B
8	San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.56	A	0.57	A
9	Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.45	A	0.51	A
10	Street "A" / Via del Agua		Future Intersection															
11	Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(49.9)	E

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

Table 4.14-16

**Opening Year (2015) With Project Conditions –
Access Alternative Via Aspen Way Peak Hour Intersection Level of Service**

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
7	San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(11.6)	B	(11.2)	B
8	San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.58	A	0.58	A
9	Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.46	A	0.52	A
10	Street "A" / Via del Agua	CSS	0	0	0	0	1	0	0	1	0	0	1	0	(9.0)	A	(8.6)	A
11	Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

Table 4.14-17

**Opening Year (2015) With Project Conditions -
Access Alternative Via Aspen Way Peak Hour Intersection Level of Service, with Improvements**

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
11	Via del Agua / Yorba Linda Bl.																	
	Without improvements	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F
	With improvements	TS	0	0	0	0	1	0	1	2	0	0	2	d	0.55	A	0.52	A

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

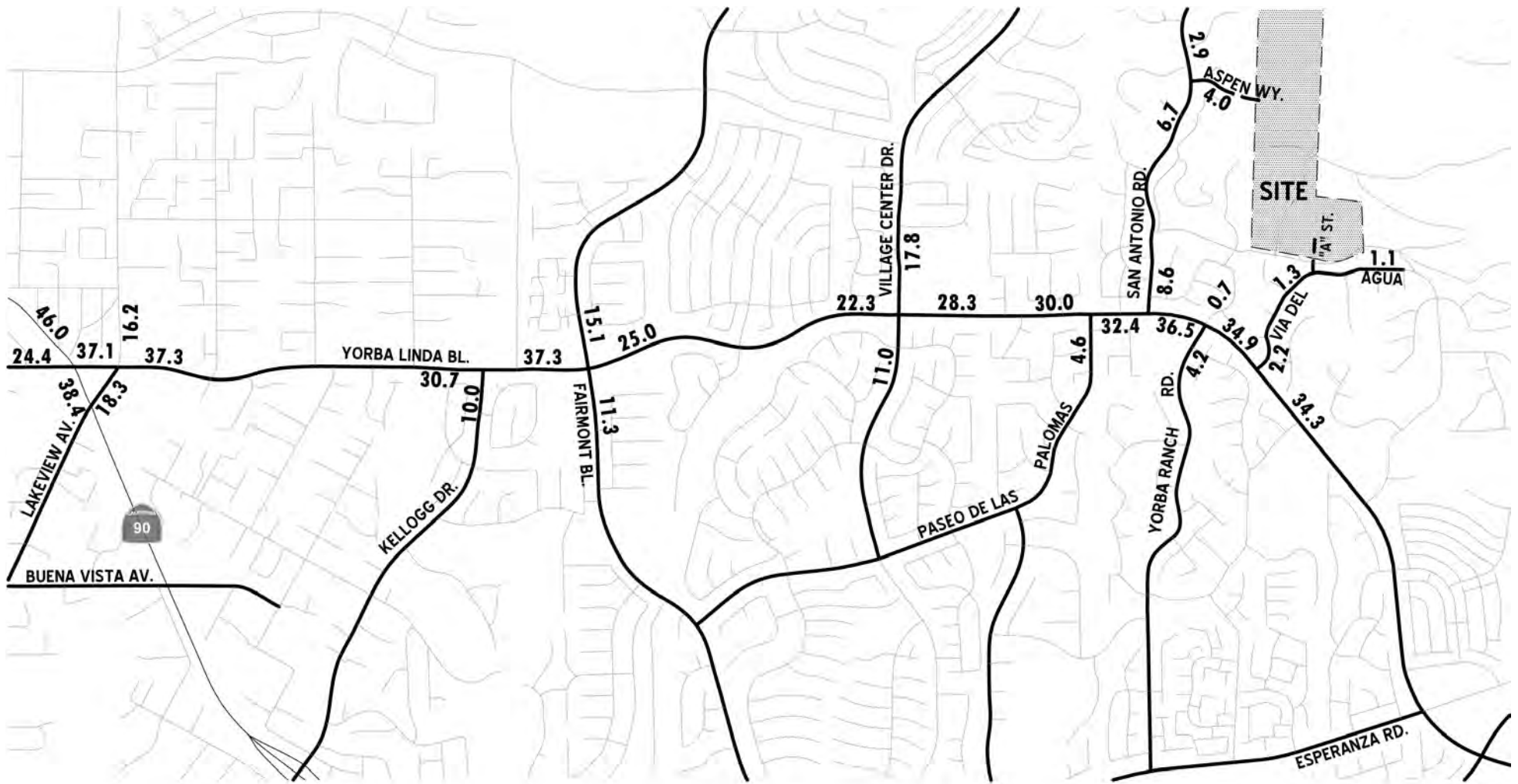
^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

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LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



**Horizon Year (2035) Without Project
Access Alternative Via Aspen Way Average Daily Traffic**

Cielo Vista Project
Source: Urban Crossroads, 2013.

FIGURE
4.14-17

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Horizon Year (2035) With Traffic Volume Forecasts

The weekday ADT volumes which can be expected for Horizon Year (2035) with Project traffic conditions, under the access alternative via Aspen Way, are shown on **Figure 4.14-18, Horizon Year (2035) With Project Access Alternative Via Aspen Way Average Daily Traffic**. Exhibits 7-13 and 7-14 within Appendix L, show the A.M. and P.M. peak hour intersection turning movement volumes for Horizon Year (2035) with Project access alternative via Aspen Way.

Horizon Year (2035) Intersection Operations Analysis

As shown in **Table 4.14-18, Horizon Year (2035) Without Project Conditions - Access Alternative Via Aspen Way Peak Hour Intersection Level of Service**, all of the study area intersections are anticipated to operate at acceptable LOS during the peak hours for without Project traffic conditions, with the exception of the intersection of Via del Agua at Yorba Linda Boulevard (LOS "F" during the A.M. and P.M. peak hours).

As shown on **Table 4.14-19, Horizon Year (2035) With Project Conditions - Access Alternative Via Aspen Way Peak Hour Intersection Level of Service**, the addition of Project traffic is not anticipated to worsen the LOS at any study area intersections. It should be noted that the traffic signal at the intersection of Via del Agua at Yorba Linda Boulevard has been assumed to be in place for Horizon Year (2035) with Project traffic conditions. The traffic signal at the intersection of Via del Agua at Yorba Linda Boulevard is the primary reason for the improved traffic conditions at this intersection under the 2035 With Project conditions. Exhibit 7-15 within Appendix L, presents the study area intersection LOS for Horizon Year (2035) without Project conditions, with access alternative via Aspen Way. Exhibit 7-16 within Appendix L, presents the study area intersection LOS for Horizon Year (2035) with Project conditions, with access alternative via Aspen Way.

Based on the threshold criteria above, since the intersection of Via del Agua and Yorba Linda Boulevard would operate at a LOS "A" under future with Project conditions, traffic impacts under the Horizon Year (2035) would be less than significant.

CONGESTION MANAGEMENT

Threshold	Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
-----------	---

4.14-2 Implementation of the Project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. This impact would less than significant.

None of the roadways directly serving the project site are within the CMP system. The only CMP roadway in the vicinity of the project site is Imperial Highway, located north of Yorba Linda Boulevard. The closest CMP intersection (i.e., Imperial Highway at Orangethorpe Avenue) is located approximately 3.0 miles away from the project site. The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. The applicable trip generation thresholds are 2,400 daily trips. Based on the trip generation cited above for the Project, the Project's traffic would not exceed the CMP thresholds. Therefore, impacts to CMP facilities would be less than significant.

TRAFFIC HAZARDS

Threshold	Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
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4.14-3 Implementation of the Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections). This impact would be less than significant.

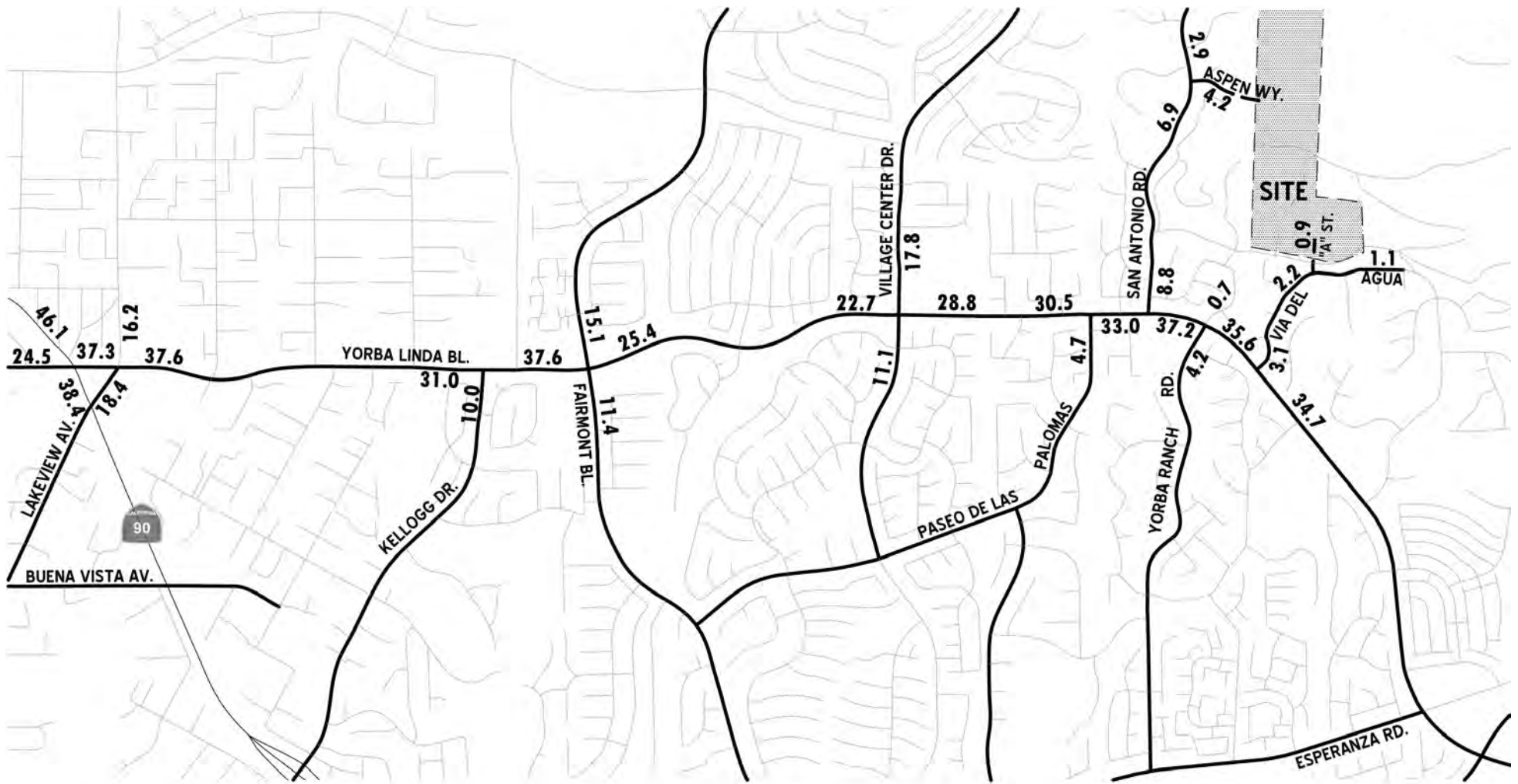
The surrounding area includes single-family residential uses similar to the Project. There are no existing hazardous design features such as sharp curves or dangerous intersections on-site or in the surrounding area. The Project does not include uses that are incompatible with the existing street system. Also, site access and circulation would be reviewed by the Orange County Public Works Road Division to ensure that all local streets proposed by the Project meet the minimum street design and size standards of the City of Yorba Linda and the County of Orange (see PDF 14-1). However, as part of the traffic study conducted for the Project, a sight distance analysis was performed at the project access point on Via del Agua based on the anticipated visibility limitations due to elevation and roadway curvature. The sight distance analysis is utilized to determine whether acceptable stopping/corner sight distances are provided based on the minimum distances defined by the County of Orange roadway standards. It should be noted that the County's sight distance criteria are consistent with the requirements outlined in the Caltrans Highway Design Manual (HDM) (2007).

The County of Orange HDM (Standard Plan No. 1117) requires the assessment of stopping sight distance. As defined by the Caltrans HDM, sight distance is the continuous length of highway ahead visible to the driver. Stopping sight distance is the minimum sight distances provided at interchanges and at-grade intersections. Only the minimum stopping sight distance has been evaluated at Street "A" on Via del Agua as it is a private driveway.

At unsignalized intersections, intersection sight distance must provide a substantially clear line of sight between the driver of the vehicle waiting on the minor road (driveway) and the driver of an approaching vehicle. For the purposes of this analysis, a 7 ½ second criterion has been applied to the outside travel lanes in either direction to provide the most conservative sight distance. The 7 ½ second criterion allows waiting vehicles to either cross all lanes of through traffic by turning left or cross the near lanes by turning right without requiring through traffic to radically alter their speed.

Street "A" on Via del Agua has assessed the stopping sight distance assuming the "object" in the road is another vehicle. Per Standard Plan No. 1117, intersection sight distance calculations assume a driver eye height of 3 ½ feet to the top of an object 4 ¼ feet above the pavement. In determining intersection sight distance, a set-back distance for the waiting vehicle on the minor road must be assumed. A set-back for the driver on the minor road shall be a minimum of 10 feet behind the edge of traveled way. For Via del Agua, Standard Plan No. 1117 states that the minimum sight distance on a local roadway is 280 feet.

The sight distance lines at Street "A" are illustrated on **Figure 4.14-19, Site Distance at Street "A" on Via del Agua**. As shown on Figure 4.14-14, there are no limited use areas identified due to the horizontal curvature of the roadway. It is anticipated that the minimum 280-foot sight distance could be accommodated on Street "A" for vehicles traveling in the eastbound and westbound directions towards Street "A".



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



No scale

**Horizon Year (2035) With Project
Access Alternative Via Aspen Way Average Daily Traffic**

Cielo Vista Project

Source: Urban Crossroads, 2013.

FIGURE

4.14-18

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Table 4.14-18

Horizon Year (2035) Without Project Conditions Access Alternative Via Aspen Way Peak Hour Intersection Level of Service

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
7	San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(11.6)	B	(11.2)	B
8	San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.60	B	0.61	B
9	Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.53	A	0.59	A
10	Street "A" / Via del Agua		Future Intersection															
11	Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	(>50.0)	F	(>50.0)	F

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.

Table 4.14-19

Horizon Year (2035) With Project Conditions Access Alternative Via Aspen Way Peak Hour Intersection Level of Service

#	Intersection	Traffic Control ^b	Intersection Approach Lanes ^a												A.M. Peak Hour		P.M. Peak Hour	
			Northbound			Southbound			Eastbound			Westbound			ICU or (Delay) ^c	LOS	ICU or (Delay) ^c	LOS
7	San Antonio Rd. / Aspen Wy.	AWS	0	1	d	0	1	0	0	0	0	1	0	d	(11.9)	B	(11.4)	B
8	San Antonio Rd. / Yorba Linda Bl.	TS	0	1	0	1	1	0	1	2	d	0	2	d	0.62	B	0.62	B
9	Yorba Ranch Rd. / Yorba Linda Bl.	TS	1	1	1	1	1	0	1	2	d	1	2	d	0.54	A	0.61	B
10	Street "A" / Via del Agua	CSS	0	0	0	0	1	0	0	1	0	0	1	0	(9.1)	A	(8.6)	A
11	Via del Agua / Yorba Linda Bl.	CSS	0	0	0	0	1	0	1	2	0	0	2	d	0.59	A	0.56	A

^a When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes (minimum 20-feet).

L = Left; T = Through; R = Right; > = Right-turn Overlap Phasing; d = Defacto Right Turn Lane; 1 = Improvement

^b CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

^c ICU reported as a volume-to-capacity ratio (for signalized intersections) and HCM delay reported in seconds (for unsignalized intersections).

Level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = Unsatisfactory LOS

Source: Cielo Vista Traffic Impact Analysis, prepared by Urban Crossroads, Inc., dated February 22, 2013.



LEGEND:

— = MINIMUM SIGHT DISTANCE LINES
(PER COUNTY OF ORANGE STD. PLAN 1117)



Sight Distance at Street "A" on Via Del Agua

FIGURE

4.14-19

Cielo Vista Project
Source: Urban Crossroads, 2013.

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Due to the roadway's vertical curve, a profile of the sight lines for Street "A" on Via del Agua has been provided on **Figure 4.14-20, Street "A" and Via del Agua Vertical Site Distance**. Figure 4.14-20 identifies the line of sight for the driver's eye height of 3 ½ feet (waiting vehicle) represented by a red line, an object height of 4 ¼ feet (approaching vehicle) represented by a green line, and the vertical profile of the roadway is represented by the black line. As shown on Figure 4.14-20, it is anticipated that a vehicle waiting to exit Street "A" on Via del Agua can see an approaching vehicle at a height of 4 ¼ feet from beyond the minimum distance of 280 feet in either direction. Since the green line (representing the approaching vehicle) clears the vertical alignment of the roadway to the east and west of Street "A", it is therefore visible to the waiting vehicle at the project driveway (Street "A"). Thus, adequate visibility would be available at this location.

Overall, the project would be consistent with the County's Standard Plan No. 1117 requirements for stopping sight distance (PDF 14-3). Further, PDF 14-2 requires the Project's landscape plans to take into consideration service lines, traffic safety sight line requirements, and structures on adjacent properties to avoid conflicts as trees and shrubs mature. As such, the Project's landscaping would not interfere with vehicular sight lines.

In addition, it is noted that similar to existing conditions, it can be expected that a maximum of seven (7) round-trip truck trips per week and a minimum of two (2) round-trip truck trips per week would occur associated with the oil operations. These truck trips would occur during off-peak traffic hours. The majority of these trips would be by a pick-up truck for inspection purposes and the occasional small tanker truck to pick up the stored oil. Such traffic would utilize existing service roads and/or streets developed as part of the Project. Such traffic currently traverses through the surrounding neighborhood and would continue to do so during operation of the Project. No new or substantially increased traffic hazards would occur as a result of the continued oil operations and associated traffic.

Based on the analysis above, impacts related to hazardous design features would be less than significant.

EMERGENCY ACCESS

Threshold	Would the project result in inadequate emergency access?
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4.14-4 Implementation of the Project would not result in inadequate emergency access. This impact would less than significant.

According to Guideline B-09 of the Orange County Fire Authority's Fire Master Plans for Commercial & Residential Development (January 1, 2011), the number of fire apparatus access roads required for a residential development is limited to one (1) if the development contains less than 150 residential units. The portion of the Project taking access from Via del Agua (via Street "A") is anticipated to consist of approximately 95 single family residential dwelling units, which is well below the 150 unit threshold. Similarly, the portion of the Project taking access from Aspen Way is anticipated to consist of approximately 17 single-family detached residential dwelling units, which is also below the 150 unit threshold. The two planning areas would be separated by open space and have their own circulation system and separate access. As such, the Project would be designed in accordance with Guideline B-09 as both portions of the Project (located off of Aspen Way and off of Via del Agua) would include a fire apparatus access road.

The Project's access drives and internal private drives would be designed to meet the County and OCFA standards. All site access and circulation would be reviewed by the Orange County Department of Public Works Road Division and the OCFA to ensure that the Project provides adequate emergency access. As discussed above, the Project would also result in less than significant traffic impacts with implementation of the prescribed mitigation measures. Accordingly, the function of the street system would remain and there would be available capacity to accommodate the projected traffic volumes, in addition to emergency vehicles.

Should there be a need for emergency evacuation in the event of a fire, AlertOC is a mass notification system designed to keep Orange County residents and businesses informed of important information during emergency events. Examples of use would include disaster notifications, evacuation notices, public health emergencies, public safety emergencies, and/or any emergency information. By registering with AlertOC, time-sensitive voice messages from the County or City of Yorba Linda can be sent to City residents home, cell or business phone. Text messages may also be sent to cell phones, e-mail accounts, and hearing impaired receiving devices.

The City of Yorba Linda, in conjunction with the Orange County Sheriff's Department, Orange County Fire Authority, the City of Brea, and the City of Placentia, has also established a Community Emergency Response Team (CERT) program to educate people about disaster preparedness. Although the City of Yorba Linda provides a tri-city training program with the City of Brea and City of Placentia, graduates are managed separately by each respective jurisdiction.

The Yorba Linda CERT Program educates people about disaster preparedness and trains them in basic disaster response skills. The goal of Yorba Linda CERT is to provide citizens with the basic skills to protect themselves, their family, and neighbors in the aftermath of a disaster.

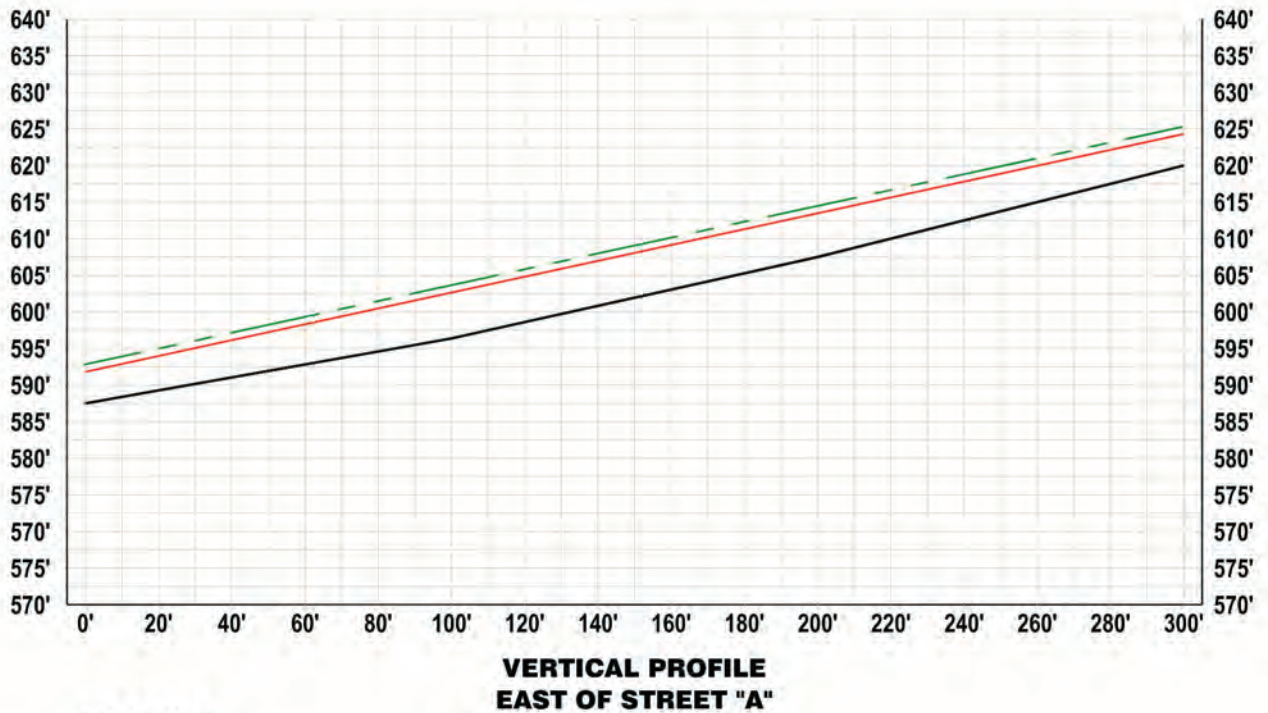
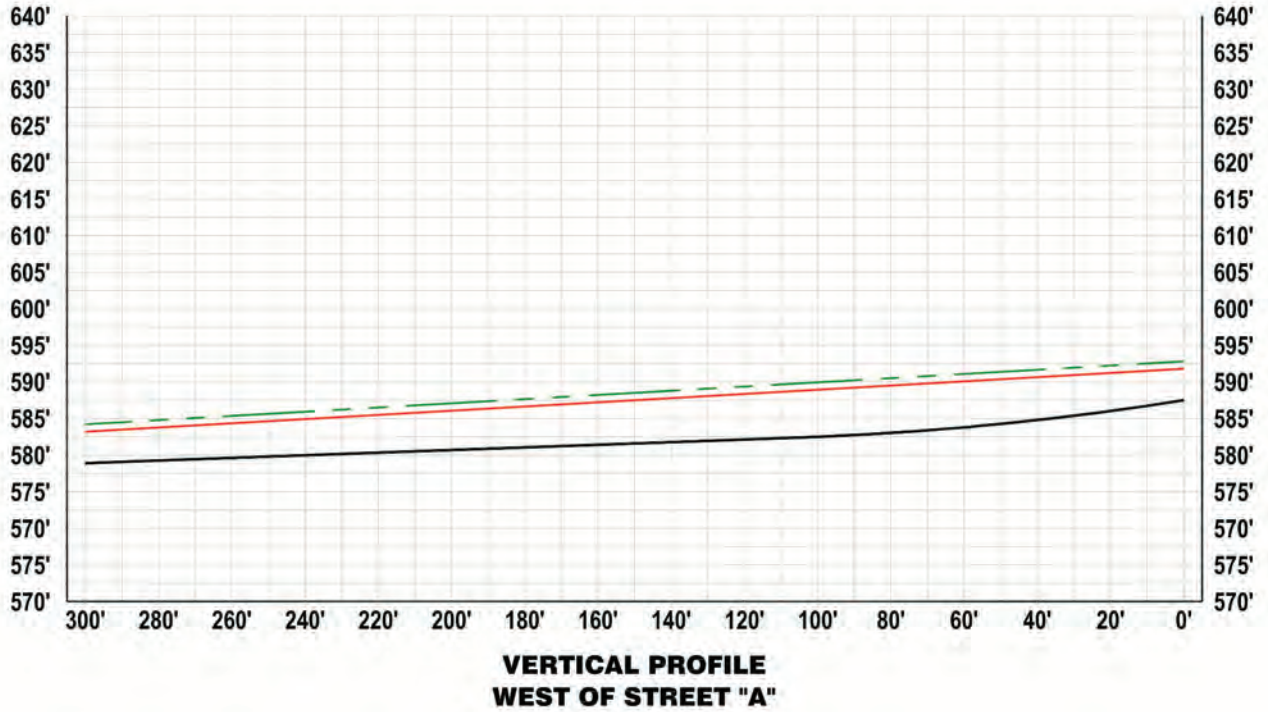
While the AlertOC and CERT programs would assist, notify and prepare local residents for emergency evacuations in the event of a wildland fire, emergency police and fire personnel would provide evacuation directions to local residents on as needed basis during a wildland fire event.

It is noted that in September 2012, the Yorba Linda City Council directed city staff to develop citywide evacuation plans for potential disasters. The evacuation plan will be added to the Emergency Operations Center Manual and will be developed by the disaster council, which is chaired by the mayor.

In October 2013, the Sheriff's Department unveiled Yorba Linda's first evacuation plan to educate residents on how best to flee should another major catastrophe break out, like the 2008 Freeway Complex fire did five years ago. According to Lt. Bob Wren, chief of police services, a goal of the plan is to prevent the same kind of gridlock residents experienced on major streets such as Imperial Highway, La Palma Avenue and Yorba Linda Boulevard when they evacuated during the 2008 fire. Further, during an evacuation, residents now can expect to be diverted by deputies and barricades from some main streets so that law enforcement and firefighting vehicles can use them.³

Overall, not only would emergency evacuation be conducted per the newly implemented evacuation plan, but as discussed in Section 7, *Hazards and Hazardous Materials*, under existing conditions, no fuel

³ Source: Daniel Langhorne of the Orange County Register, Article titled: *City Evacuation Plan for Future Fires Unveiled*, published October 17, 2013.



LEGEND:

- = ROADWAY
- = DRIVER'S EYE HEIGHT (3'6")
- - - = OBJECT HEIGHT (4'3")



**Street "A" and Via Del Agua
Vertical Sight Distance**

Cielo Vista Project
Source: Urban Crossroads, 2013.

FIGURE

4.14-20

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modification exists on the project site, which exposes the existing single-family residential uses to the west and south of the site to substantial risks of wildland fires. Accordingly, with the Project's fuel modification features, the risk of wildland fires to the existing single-family residential uses to the west and south of the site would be substantially reduced when compared to existing conditions.

Based on the above, impacts related to emergency access would be less than significant.

ALTERNATIVE MODES OF TRANSPORTATION

Threshold	Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?
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4.14-5 Implementation of the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be less than significant.

The Project consists of a residential development and does not propose to alter any existing bus turnouts or established alternative transportation programs within the County. Although OCTA Routes 20 and 26 serve the project area, no bus routes are currently located or proposed adjacent the project site. Changes to public transportation, including the addition of bus routes, location(s) of bus stops, modifications to schedules, etc., would be implemented by OCTA based on future demands for such service. Also, no bike facilities are currently located or proposed adjacent the project site.

There are existing trails near the site associated with the City of Yorba Linda planned system of riding, hiking trails and bikeways. Existing trails near the site located within the City of Yorba Linda include an earthen multipurpose (horse/bike) trail located along San Antonio Road and San Antonio Park to the west and south of the project site; an earthen multipurpose trail, trail head, and staging area located along Casino Ridge Road to the north of the site; an equestrian path located to the southwest of the site; and an earthen multipurpose trail located off Village Center Drive to the west of the site. None of these facilities would be altered with Project implementation. The City of Yorba Linda General Plan also designates several planned trails within the project area, which are discussed and evaluated in Section 4.13, *Recreation*, of this EIR. As concluded therein, all the contemplated trails through and near the project site as illustrated on the City of Yorba Linda's Riding, Hiking and Bikeway Trail Component Map would not conflict with the Project. Nonetheless, Mitigation Measure 4.13-2, which requires the identification and coordination with the City of Yorba Linda of all proposed trail alignments, has been prescribed to ensure that all contemplated trails could be constructed through the project site.

Overall, based on the above, the Project would not conflict with adopted policies, plans, or programs supporting alternative transportation.

CONSISTENCY WITH COUNTY OF ORANGE AND CITY OF YORBA LINDA PLANS AND POLICIES

(1) County of Orange General Plan

The County's General Plan contains a number of goals and policies that are relevant to traffic and transportation, including goals and policies contained in the General Plan Land Use, Transportation, and Growth Management Elements. As discussed below in **Table 4.14-20, Project Consistency with Orange County General Plan**, the Project would not conflict with the applicable goals and policies of the County of Orange General Plan. As such, impacts would be less than significant.

Table 4.14-20

Project Consistency with Orange County General Plan

Goals, Objectives and Policies	Project Consistency
Land Use Element	
General Plan's Major Land Use Element Policies	
Policy 4 Land Use/Transportation Integration. To plan an integrated land use and transportation system that accommodates travel demand.	Consistent. As discussed within this Section, the Project's proposed traffic improvements of the transportation system along with implementation of the prescribed mitigation measures would accommodate Project traffic as well as future traffic volumes on the transportation system.
Transportation Element	
Policy 1.2 Apply conditions to land use development projects to ensure that the direct and cumulative impacts of these projects are mitigated consistent with established level of service policies.	Consistent. As discussed within this Section, mitigation measures are prescribed for the Project to reduce potentially significant traffic impacts of the Project to a less than significant level to be consistent with adopted level of service policies.
Objective 2.1 Plan, develop and implement a circulation system in the unincorporated areas, which is consistent with the Master Plan of Arterial Highways and circulation plans of adjacent jurisdictions.	Consistent. The Project would include local streets within the project site that would not conflict with the Master Plan of Arterial Highways and circulation plans of adjacent jurisdictions.
Policy 2.4 Apply conditions to development projects to ensure compliance with OCTA's transit goals and policies.	Consistent. As discussed within this Section, the Project would result in less than significant impacts to alternative transportation facilities. Any transit program requirements related to bus or rail would be provided by OCTA upon the agency's review of the tentative tract map.
Policy 2.5 Apply conditions to development projects to ensure implementation of the Circulation Plan as applicable.	Consistent. As discussed within this Section, the Project would result in less than significant traffic impacts with implementation of the prescribed mitigation measures. Project implementation would not conflict with implementation of the County's Circulation Plan. Further, conditions of approval would be applied to the Project as determined appropriate and necessary by the County to ensure compliance with applicable County General Plan circulation policies.

Table 4.14-20 (Continued)

Project Consistency with Orange County General Plan

Goals, Objectives and Policies	Project Consistency
<p>Policy 3.1 Maintain acceptable levels of service on arterial highways pursuant to the Growth Management Element of the General Plan.</p>	<p>Consistent. As discussed within this Section, the Project would result in less than significant traffic impacts with implementation of the prescribed mitigation measures. As discussed therein, the Project would contribute traffic to the deficient intersection of Via del Agua/Yorba Linda Boulevard. A traffic signal is required to mitigate project impacts at this intersection with the Project paying its fair share for the signal, installing the signal, or paying the full cost for installation, with the latter two alternatives subject to reimbursement (see Mitigation Measure 4.14-2). With installation of a traffic signal at this intersection, the level of service would be reduced from LOS "F" to LOS "A".</p>
<p>Policy 3.2 Ensure that all intersections within the unincorporated portion of Orange County maintain a peak hour level of service "D", according to the County Growth Management Plan Transportation Implementation Manual.</p>	<p>Consistent. As discussed within this Section, with implementation of the prescribed mitigation measures, all key study area intersections serving the project site would operate at LOS "D" or better.</p>
<p>Policy 3.3 Evaluate all proposed land use phasing plans for major development projects to ensure maintenance of acceptable Levels of Service on arterial highway links and intersections.</p>	<p>Consistent. The traffic impact analysis included an analysis of cumulative development within the study area, including the adjacent Esperanza Hills project. As discussed within this Section, with implementation of the prescribed mitigation measures, all nearby arterial highways and intersections serving the project site would operate at acceptable levels of service.</p>
<p>Policy 5.1 Establish "traffic impact fees" for application to county development projects with measureable traffic impacts, as defined in the Growth Management Element of the General Plan. These fees may serve as local matching funds for Orange County Measure "M", state and federal highway funding programs.</p>	<p>Consistent. The Project would pay all applicable traffic impact fees as defined in the Growth Management Element of the General Plan and required by the County of Orange.</p>
<p>Policy 5.2 Use uniform analytical methods, in conformance with the Growth Management Plan, Measure M, and the Congestion Management Program (CMP), to aid in transportation planning and impact evaluation and support the development and utilization of sub-area models to address detailed transportation issues.</p>	<p>Consistent. The traffic analysis contained within this Section, included using traffic analysis methodologies and computer modeling approved by the County of Orange, as well as the City of Yorba Linda, Planning Staff. The traffic study is consistent with traffic modeling that occurs within the local and regional project vicinity to aid in transportation planning.</p>
<p>Policy 5.5 Require as conditions of approval that the necessary improvements to arterial highway facilities, to which a project contributes measurable traffic, be constructed and completed within a specified time period or ADT/peak hour milestone to attain a Level of Service "D" at the intersections under the sole control of the County.</p>	<p>Consistent. As discussed within this Section, Mitigation Measure 4.14-2 is prescribed for the Project to attain a Level of Service "D" or better at the intersection of Via del Agua/Yorba Linda Boulevard. Per the mitigation measure, the traffic signal to be constructed at this intersection would be installed prior to occupancy of the Project's residential units with the Project paying its fair share for the signal, installing the signal, or paying the full cost for</p>

Table 4.14-20 (Continued)

Project Consistency with Orange County General Plan

Goals, Objectives and Policies	Project Consistency
	installation, with the latter two alternatives subject to reimbursement (see Mitigation Measure 4.14-2).
Policy 5.7 Require, as a condition of approval, that a development mitigation program, development agreement or developer fee program be adopted to ensure that development is paying its fair share of the costs associated with that development pursuant to Policy 5.1. (“Traffic Impact Fees”).	Consistent. Conditions of approval would be applied to the Project requiring payment of adopted Traffic Impact Fees associated with the Project’s fair share of costs for traffic improvements.
Objective 6.7 Require developers of more than 100 dwelling units, or 25,000 square feet of non-residential uses to: a) demonstrate consistency between the local transportation facilities, services, and programs, and the regional transportation plan; and b) submit, as part of their development proposal (nonresidential), a Transportation System Management/Transportation Demand Management (TSM/TDM) plan which includes strategies, implementation programs and an annual monitoring mechanism to ensure a reduction of single occupant automobile travel associated with development.	Consistent. With 112 total units in two planning areas, the Project would not create an economy of scale to provide its own Transportation Demand Management Plan. However, the Project would cooperate with the County to participate in any such plan developed or expanded in the east Yorba Linda area, with program participation addressed by the project’s homeowners association.
Growth Management Element	
Goal 1 Reduce traffic congestion.	Consistent. As discussed within this Section, the Project would result in less than significant traffic impacts with implementation of the prescribed mitigation measures. As discussed therein, the Project would contribute traffic to the deficient intersection of Via del Agua/Yorba Linda Boulevard. A traffic signal is required to mitigate project impacts at this intersection with the Project paying its fair share for the signal, installing the signal, or paying the full cost for installation, with the latter two alternatives subject to reimbursement (see Mitigation Measure 4.14-2). With installation of a traffic signal the intersection, the level of service would be reduced from LOS “F” to LOS “A”.
Goal 2 Ensure that adequate transportation facilities, public facilities, equipment, and services are provided for existing and future residents.	Consistent. The project would provide adequate roadways that would support the proposed single-family residential uses. Further, conditions of approval would be applied to the Project requiring payment of adopted Traffic Impact Fees associated with the Project’s fair share of costs for traffic improvements and services.
Objective 2 The circulation system shall be implemented in a manner which achieves the established Traffic Level of Service Policy.	Consistent. As discussed within this Section, with implementation of the prescribed mitigation measures, all nearby arterial highways and intersections serving the project site would operate at acceptable levels of service.
Policy 3 It is the policy of the County that within three years of issuance of the first use and occupancy permit for a development project or five years of the	Consistent. As discussed within this Section, a mitigation measure is prescribed for the Project to attain a Level of Service “D” or better at the intersection of Via del

Table 4.14-20 (Continued)**Project Consistency with Orange County General Plan**

Goals, Objectives and Policies	Project Consistency
<p>issuance of a finished grading permit or building permit for said development project, whichever occurs first, that the necessary improvements to arterial highway facilities, to which the project contributes measurable traffic, are constructed and completed to attain Level of Service (LOS) "D" at intersections under the sole control of the County. LOS "C" shall also be maintained on Santiago Canyon Road links until such time as the uninterrupted segments of the roadway (i.e., no major intersections) are reduced to less than three miles.</p> <p>The "County of Orange Growth Management Element Transportation Implementation Manual (TIM)" which was adopted by the Board of Supervisors in June 1989 and, as may subsequently be amended, establishes the procedures and local parameters for the implementation of this policy. Amendments to the manual shall be approved by the Board of Supervisors only after a public hearing.</p>	<p>Agua/Yorba Linda Boulevard. The traffic signal to be constructed at this intersection would be installed prior to occupancy of the Project's residential units. The traffic signal would be located within the City of Yorba Linda. As such, the Project Applicant and/or the Lead Agency (County of Orange) will work collaboratively with the City of Yorba Linda, as appropriate, to ensure the traffic signal is installed.</p>
<p>Policy 4 Comprehensive traffic improvement programs shall be established to ensure that all new development provides necessary transportation facilities and intersection improvements as a condition of development approval. Participation in such programs shall be on a pro-rata basis and shall be required of all development projects except where an increased level of participation exceeding these requirements is established through negotiated legal mechanisms, such as a public facilities development agreement.</p>	<p>Consistent. Please refer to responses for Goal 2 and Policy 3 above.</p>

Source PCR Services Corporation, 2013.

(2) City of Yorba Linda General Plan

The City's General Plan contains goals and policies that are relevant to traffic and circulation, including goals and policies contained in the General Plan Circulation, Land Use and Growth Management Elements. As discussed below in **Table 4.14-21, Project Consistency with Yorba Linda General Plan**, the Project would be potentially consistent with the applicable goals and policies of the City of Yorba Linda General Plan pertaining to traffic and circulation. The notation of "Potentially Consistent" is in deference to the City's authority for making such determinations for projects located within the city limits.

Table 4.14-21

Project Consistency with Yorba Linda General Plan

Goals, Objectives and Policies	Project Consistency
Circulation Element	
<p>Goal 1 To develop a circulation system that meets the needs of current and future residents of the City, has adequate capacity for projected future traffic demands at acceptable levels service, and facilitates the safe and efficient movement of people and goods throughout the City.</p>	<p>Potentially Consistent. The Project would include local collector streets which connect with Via del Agua in Planning Area 1 and with Aspen Way in Planning Area 2 thereby providing the necessary capacity for safe ingress to and egress from the project site.</p>
<p>Policy 1.3 Develop street design standards that conform with Caltrans and OCEMA (OCPW) Highway Design Manuals to the greatest extent feasible. Standards should include recommended design parameters, such as right-of-way widths, design speeds, capacity, maximum grades and associated features, including medians and bicycle lanes.</p>	<p>Potentially Consistent. For Planning Area 1, local streets A and B would provide 20-foot travel lanes and sidewalks on both sides of the street; Street C would have 15-foot travel lanes with a sidewalk on one side of the street; and Streets D and E would provide 18-foot travel lanes with a sidewalk on both sides of the street. Street F in Planning Area 2 also would have 18-foot travel lanes with a sidewalk on both sides of the street. All streets would be designed in compliance with OCPW standard plan 1117 for local streets.</p>
<p>Policy 1.5 Establish local street design standards that discourage their use for through traffic movement through residential communities.</p>	<p>Potentially Consistent. The proposed local streets would serve the project site only and would not accommodate any through traffic.</p>
<p>Policy 1.6 Locate new developments and their access points in such a way as to discourage through traffic from utilizing local and residential streets.</p>	<p>Potentially Consistent. The project site would have two ingress/egress points which would distribute traffic on existing streets as opposed to having one point of access. A total of 95 units would have two turning movements on Via del Agua from Planning Area 1, and access onto Aspen Way from Planning Area 2, with one turning movement to the south on San Antonio Road for 17 units.</p>
<p>Policy 1.8 Require that proposals for major new developments include traffic impact analysis which identifies measures to mitigate the traffic impacts of such new developments.</p>	<p>Potentially Consistent. A traffic study has been prepared for the Project which identifies the intersection of Via del Agua and Yorba Linda Boulevard as being impacted by the Project. A traffic signal is required to mitigate project impacts at this intersection with the Project paying its fair share for the signal, installing the signal, or paying the full cost for installation, with the latter two alternatives subject to reimbursement.</p>
<p>Goal 3 Maximize the efficiency of the City's circulation system through the use of transportation system management and demand management strategies.</p>	<p>Potentially Consistent. With 112 total units in two planning areas, the Project would not create an economy of scale to provide its own Transportation Demand Management Plan. However, the Project would cooperate with the City to participate in any such plan developed or expanded in the east Yorba Linda area, with program participation addressed by the project's homeowners association.</p>
<p>Policy 3.7 Require that new developments provide Transportation Demand Management Plans, with mitigation monitoring and enforcement plans, as part of required Traffic Studies, and as a standard requirement for development processing.</p>	

Table 4.14-21 (Continued)

Project Consistency with Yorba Linda General Plan

Goals, Objectives and Policies	Project Consistency
<p>Goal 9 Develop an efficient parking system that supports a safe vehicular transportation system, while minimizing the friction between parked and moving vehicles.</p>	<p>Potentially Consistent. The Project would provide ample parking for residents and guests with two or three car garages for the single family residences with additional parking available in driveways, and on the Project's local streets with a travel lane width of either 18 feet or 20 feet.</p>
<p>Policy 9.4 Require that all new developments provide adequate parking to meet the parking demands generated by their development.</p>	
Land Use Element	
<p>Policy 5.1: Implement public infrastructure improvements necessary to serve land uses included in the Land Use Plan (as defined by the Circulation Element).</p>	<p>Potentially Consistent. Project site access to Planning Area 1 would be to the south connecting with existing Via del Agua. Project site access would be to the west along an extended Aspen Way connecting with San Antonio Road. With the addition of project traffic, only one of the analyzed intersections would exceed the City's acceptable Level of Service Standard (LOS D). The Via del Agua and Yorba Linda Boulevard intersection is forecast to operate at LOS F without a traffic signal. However, intersection operations would improve to LOS B when considering additional traffic in the 2015 opening year and 2035 horizon year with a traffic signal at this intersection. Per Mitigation Measure 4.14-2, a traffic signal is required to mitigate project impacts at the Via del Agua and Yorba Linda Boulevard intersection with the Project paying its fair share for the signal, installing the signal, or paying the full cost for installation, with the latter two alternatives subject to reimbursement. All other key study intersections are forecast to operation at LOS D or better, consistent with both City and County circulation policy.</p>
Growth Management Element	
<p>Goal 1A An adequate transportation/circulation system that supports regional and local land uses at adopted Level of Service (LOS) standards and complies with requirements of the Countywide Traffic Improvement and Growth Management Program (Measure M).</p>	<p>Potentially Consistent. The Project would not cause an exceedance of the City's target standard of LOS D with the exception of the Via del Agua and Yorba Linda Boulevard intersection which is presently operating at LOS F during the A.M. peak hour. Per Mitigation Measure 4.14-2, a traffic signal is required to mitigate project impacts at the Via del Agua and Yorba Linda Boulevard intersection with the Project paying its fair share for the signal, installing the signal, or paying the full cost for installation, with the latter two alternatives subject to reimbursement. Installation of the signal would allow the intersection to operate at LOS A or LOS B.</p>
<p>Policy 1.1 All feasible mitigation measures shall be designated to achieve the target standard LOS D unless it can be demonstrated that the unacceptable level of service is a direct result of regional traffic.</p>	
<p>Policy 1.1 All feasible mitigation measures shall be designated to achieve the target standard LOS D unless it can be demonstrated that the unacceptable level of service is a direct result of regional traffic.</p>	

Table 4.14-21 (Continued)

Project Consistency with Yorba Linda General Plan

Goals, Objectives and Policies	Project Consistency
<p>Policy 2.2 All new development shall be required to participate in the City's Transportation Fee Program(s). These fee programs shall be designed to ensure that all development projects fund their pro rata share of the necessary long-term transportation improvements identified in the Circulation Element of the General Plan or the Circulation Technical Report.</p>	<p>Potentially Consistent. The Project entitlements are being processed through the County of Orange as the project site is located in the unincorporated county. However, the Project Applicant is amenable to participate on a fair share basis in the City's Transportation Fee Program(s) as the intent is to explore opportunities for annexation of the project site to the City after consideration of entitlements by the County but prior to grading permit issuance.</p>
<p>Policy 2.3 Require all new development to pay its share of the costs associated with that project, including regional traffic mitigation.</p>	<p>Potentially Consistent. To the extent that the Project is required to pay fees determined by the Transportation Corridor Agencies' Foothill-Eastern Fee Program, the fee would be paid before building permit issuance.</p>
<p>Policy 2.4 Where a new development project contributes measurable traffic, require that the necessary improvements to transportation facilities are constructed and completed pursuant to the following conditions:</p> <ul style="list-style-type: none"> • Within three years of the issuance of a building permit for project; or, • Within five years of the issuance of a grading permit for the development project, whichever comes first. <p>The City may establish a Level of Service "D" or the existing LOS as the mitigated LOS goal standard for intersections solely under the control of the City.</p>	<p>Potentially Consistent. The only required Project improvement as identified in the traffic study is for signal installation at the intersection of Via del Agua and Yorba Linda Boulevard. Compliance with the timeframe provided by this policy would be included as a condition of approval at the appropriate entitlement level.</p>

Source PCR Services Corporation, 2013.

3. CUMULATIVE IMPACTS

4.14-6 The Project combined with the related projects would result in less than significant cumulative traffic-related impacts with implementation of the prescribed mitigation measures for the Project.

The traffic analysis under Impact Statement 4.14-1 considers ambient traffic growth and traffic growth attributable to the identified related projects, including the Esperanza Hills Project, anticipated to occur under both Opening Year (2015) and Horizon Year (2035) scenarios. The list of cumulative projects is shown in Table 4.14-7. Therefore, the cumulative impact analysis is incorporated into the analysis presented under Impact Statement 4.14-1. Accordingly, the cumulative impact analysis conducted under Impact Statement 4.14-1 includes the incremental effect of the Project added to other past, present and probable

future projects. As discussed therein, traffic impacts during operation of the Project would be less than significant with implementation of the prescribed mitigation measure (refer to Mitigation Measure 4.14-2). With regards to construction related traffic and pedestrian safety, per Mitigation Measure 4.14-1, the Project would be required to prepare a Construction Staging and Traffic Management Plan to be implemented during construction of the Project. The Construction Staging and Traffic Management Plan would be required to consider related project construction traffic, particularly the Esperanza Hills Project. The Esperanza Hills Project is the only related project that could have cumulative construction traffic impacts on local, neighborhood streets with the Project. Due to their distance from the project site, the other related projects would not have construction traffic mixed with the Project's construction traffic on local neighborhood streets, particularly near Travis Ranch School. Thus, potentially significant cumulative construction-related traffic impacts would be reduced to a less than significant level with implementation of Mitigation Measure 4.14-1.

With regard to hazardous design features and conflicts with alternative transportation facilities and programs, it is anticipated that future related projects, including the Esperanza Hills Project, similar to the Project, would be subject to appropriate City and/or County review to ensure that no hazardous design features proposed by a project and no conflicts occur with alternative transportation facilities and programs. The Project does not have any design features that would be interconnected with the Esperanza Hills Project such that a hazardous design-related traffic impact could occur. Therefore, cumulative impacts related to these issues would be less than significant.

With regard to emergency access, the Project would result in a less than significant impact as described above, particularly as it meets the County's minimum number of required emergency access roads. All related projects, including the Esperanza Hills Project, would be responsible for providing the minimum number of required emergency access roads built to appropriate roadway standards, as required by the jurisdiction in which the project is located. As such, a less than significant cumulative impact regarding emergency access would occur with Project implementation.

4. REFERENCES

Cielo Vista Traffic Analysis. Urban Crossroads. February 22, 2013.

County of Orange General Plan. Updated through March 22, 2011.

