



5.4 Traffic and Circulation



5.4 TRAFFIC AND CIRCULATION

5.4.1 PURPOSE

This section identifies existing traffic and circulation conditions within the Study Area and provides an analysis of potential impacts associated with implementation of the General Plan Update. Potential impacts are identified and mitigation measures to address potentially significant impacts are recommended, as necessary.

This section is based upon the *City of Rancho Santa Margarita General Plan Traffic Impact Analysis* (Traffic Impact Analysis), dated August 2, 2018 and prepared by Urban Crossroads; refer to [Appendix C, Traffic Impact Analysis](#).

5.4.2 EXISTING REGULATORY SETTING

STATE

Assembly Bill 32 and Senate Bill 375

Senate Bill 375 (SB 375) became law effective January 1, 2009 as implementing legislation of Assembly Bill 32 (AB 32), which requires the State to reduce Greenhouse Gas (GHG) emissions across all industry sectors back to 1990 levels by the year 2020. Both laws are administered and enforced through the California Air Resources Board (CARB).

Given that the transportation sector is the largest contributor to GHG emissions throughout California, SB 375 targets reduction of GHG emissions specific to cars and light trucks. The law requires each of the State's 18 Metropolitan Planning Organizations (MPO) to develop a Sustainable Communities Strategy (SCS), which will include specific strategies for improving land use and transportation efficiency. The most prominent strategy includes the identification and development of higher density, mixed-use projects around public transportation system stations. Other supported strategies relate to the integration of Intelligent Transportation Systems to improve circulation on freeways and arterials.

Every SCS to be developed under SB 375 is required to be integrated into each MPO's Regional Transportation Plan (RTP), thus encouraging local jurisdictions to comply. Transportation improvement projects not listed in the RTP become ineligible to receive funding from some State and Federal programs.

Complete Streets Act of 2008 (Assembly Bill 1358)

Assembly Bill 1358 (AB 1358), the Complete Streets Act of 2008, was developed in response to and in support of other legislation aimed at reducing vehicle emissions through reduced trip length and frequency combined with changes in land use policies. Specifically, the bill directs that, "commencing January 1, 2011, that the legislative body of a city or county, upon any substantive revision of the circulation element of a general plan, modify the circulation element to plan for a balanced, multi-modal transportation network that meets the needs of all users of streets, roads, and highways, defined to



include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan."

The Complete Streets Act is supported by Caltrans Deputy Directive DD-64-R1, which memorializes the importance of pedestrian and bicycle facilities to the State's transportation system and outlines responsibilities for Caltrans employees to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of complete streets throughout the State.

Senate Bill 743

On September 27, 2013, California Governor Jerry Brown signed Senate Bill 743 (SB 743) into law which requires an analysis of vehicle miles traveled (VMT) to identify transportation impacts in a project's environmental impact study. The Office of Planning and Research (OPR) is working on providing guidance on a threshold for determining a VMT impact. Draft guidelines have been released for comments, however no final guidance has been adopted.

The SB 743 legislation also removes level of service (LOS) as a California Environmental Quality Act (CEQA) threshold of significance. OPR has submitted the final draft guidelines for SB 743 implementation that will be submitted to the Natural Resources Agency for the formal rule making process. In addition, OPR has prepared a Technical Advisory on Evaluating Transportation Impacts in CEQA, which contains OPR's technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. After the rule making process is complete, agencies will have a two-year "grace" period to update their CEQA guidelines for consistency with the SB 743 requirements. As such, all lead agencies will be required to utilize VMT as a CEQA metric instead of LOS by January 1, 2020.

REGIONAL

2016 Regional Transportation Plan/Sustainable Communities Strategy

On April 7, 2016, the Southern California Association of Governments' (SCAG) Regional Council adopted the *2016 Regional Transportation Plan/ Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2016 RTP/SCS closely integrates land use and transportation so that the region can grow smartly and sustainably.

The 2016 RTP/SCS identifies several themes that resonate throughout the document including: integrating strategies for land use and transportation; striving for sustainability; protecting and preserving existing transportation infrastructure; increasing capacity through improved systems management; giving people more transportation choices; leveraging technology; responding to demographic and housing market changes; supporting commerce, economic growth and opportunity; promoting the link among public health, environmental protection and economic opportunity; and building a plan based on the principle of social equity and environmental justice. The 2016 RTP/SCS



includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the Federal Clean Air Act. As such, the RTP/SCS contains a regional commitment for the broad deployment of zero- and near-zero emission transportation technologies in the 2020 to 2040 timeframe and clear steps to move toward this objective.

Orange County Sustainable Communities Strategy

Although SCAG is responsible for developing the SCS for the SCAG Region, SB 375 also allows for a subregional council of governments and county transportation commission to work together to propose a subregional SCS. As one of these subregions, Orange County has prepared its own subregional SCS (OCSCS). The current OCSCS was prepared in 2016 by the Orange County Council of Governments (OCCOG) and Orange County Transportation Authority (OCTA), in collaboration with multiple Orange County stakeholders including city agencies, the County of Orange, County special districts, the Center for Demographic Research, California Department of Transportation (Caltrans), and Transportation Corridor Agencies (TCA).

The OCSCS identifies current population, housing, and employment levels in Orange County, and then describes projected long-term trends. The resulting assessment is that most of Orange County's projected growth in population, housing, and employment will occur near existing and future job centers, which will positively impact transportation patterns and, therefore, be beneficial to GHG emission reductions.

Because of the interconnectedness between Orange County's population, housing, and employment and the transportation systems that support them, the OCSCS also delineates the foundational transportation systems that currently exist in Orange County. Transportation systems described include freeways, arterial streets and local roads, rail and bus transit, bikeways, and demand responsive services and transportation demand management (TDM).

Orange County Congestion Management Program

The current version of the Orange County Congestion Management Program (CMP) was prepared by OCTA in October 2017. The goals of the CMP are to support regional mobility objectives by reducing traffic congestion; providing a mechanism to coordinate land use and development decisions that support the regional economy; and determining gas tax fund eligibility. All freeways and selected arterial roadways in the County are designated elements of the CMP system of highways and roadways. OCTA has adopted a minimum LOS threshold of LOS "E" for CMP facilities. Based on OCTA's *2017 Congestion Management Program*, there are no roadways within the City of Rancho Santa Margarita identified as CMP facilities.

Orange County Master Plan of Arterial Highways

The Orange County Master Plan of Arterial Highways (MPAH) provides a countywide transportation framework that is maintained by OCTA. The MPAH was established to ensure that the regional arterial highway network would be planned, developed, and



preserved. As the administrator of the MPAH, OCTA is responsible for maintaining the integrity of the MPAH system through its coordination with cities and the County, and determinations of cities' and County consistency with the MPAH. To aid in establishing consistency among plans, all jurisdictions are encouraged to use common land use assumptions and travel demand projections. OCTA facilitates the use of these common assumptions through administration of Orange County Transportation Analysis Model (OCTAM).

OCTA Commuter Bikeways Strategic Plan

The 2009 OCTA Commuter Bikeways Strategic Plan (CBSP), developed by OCTA, encourages the enhancement of Orange County's regional bikeways network to make bicycle commuting a more viable and attractive option. OCTA's action plan includes improving the regional bikeway network (funding, encouraging, and supporting where possible), external coordination (maintaining the CBSP, facilitating coordination), internal coordination, and addressing regional priorities. The plan is financially unconstrained, so it is the responsibility of each implementing agency to identify funding sources for the projects within their purview.

Measure M and Renewed Measure M

In 1990, Orange County voters approved Measure M, a 20-year program for transportation improvements funded by a half-cent sales tax. Measure M allocates all sales tax revenues to specific Orange County transportation improvement projects in three major areas – freeways, streets and roads, and transit. In 2006, Orange County voters approved the renewal of Measure M from 2011 to 2041. Revenue generated by Measure M is returned to local jurisdictions for use on local and regional transportation improvement and maintenance projects. Each jurisdiction is required to comply with the Countywide Traffic Improvement and Growth Management Program to receive funding.

5.4.3 EXISTING ENVIRONMENTAL SETTING

REGIONAL ACCESS

The City of Rancho Santa Margarita is located in eastern Orange County and shares its borders with the cities of Mission Viejo and Lake Forest to the west and unincorporated Orange County to the north and south. Many of the arterial roadways in Rancho Santa Margarita extend beyond the City boundaries into neighboring areas; thus, circulation issues and travel patterns extend beyond City limits. Land use decisions and traffic patterns within Rancho Santa Margarita and adjacent jurisdictions have the potential to affect the quality of traffic flow and mobility within each respective city.

Regional access to the City is provided via the Foothill Transportation Corridor State Route 241 (SR-241), State Route 133 (SR-133), and Interstate 5 (I-5). SR-241 passes through the central portion of the City in a north-south direction while SR-133 and I-5 travel in a north-south direction west of the City, connecting with neighboring south Orange County cities.



FUNCTIONAL STREET CLASSIFICATION

The *Rancho Santa Margarita General Plan Circulation Element* (2013 Circulation Element) roadway network is mostly constructed, consistent with the City's largely built out land use pattern. The City's roadways are characterized by their functional classification that defines the level of mobility and access. These functional roadway classifications range from limited access toll roads (the largest) to collectors (two lane roadways with a high degree of access from local streets and driveways); refer to Traffic Impact Analysis Exhibit 2-2, *Rancho Santa Margarita General Plan Roadway Network*.

Table 5.4-1, Roadway Network Classification Features, provides a summary of the key functional features associated with each roadway network classification, including its purpose, access control, bike lanes, roadside parking and typical posted speed limits.

**Table 5.4-1
Roadway Network Classification Features**

Roadway Classification	Purpose	Land Access	Bike Lanes	On-Street Parking	Posted Speed (mph)
Toll Road	Serves interregional and intraregional trips. Carries heavy volume at high speed.	Extremely limited	No	Emergency Only	60+
Major	Carries local and through traffic to and from destinations outside local community. Moderate to heavy volume; moderate to high speed.	Restricted	Class II - Marked on-street bike lanes	Restricted	45-55
Primary	Connects collectors to higher order roadways. Carries moderate volume at moderate to high speed.	Restricted if an alternative is available	Class II - Marked on-street bike lanes	Restricted	40-50
Secondary	Links neighborhoods with major activity centers, other neighborhoods, and arterials. Generally, not for through traffic. Moderate volume; low to moderate speed.	Generally allowed	Class III Unmarked bike lanes (shared lane)	Generally allowed	35-45
Collectors	Collects traffic from and distributes traffic to local streets within neighborhoods or business districts. Usually longer than local streets. Low traffic volumes and low to moderate speeds.	Allowed	Class III Unmarked bike lanes (shared lane)	Generally allowed	30-40

Source: Urban Crossroads, City of Rancho Santa Margarita General Plan Traffic Impact Analysis, August 2, 2018.

The roadway classifications listed in Table 5.4-1 are defined by the 2013 Circulation Element as follows.

Toll Road

The Foothill Transportation Corridor State Route 241 (SR-241) provides the major regional access to the City, but also divides the City by limiting east-west local access to three interchange locations (Antonio Parkway, Santa Margarita Parkway, and Los Alisos Boulevard), and two additional over-crossings at Melinda Road and Avenida De Las Banderas. SR-241 currently consists of two travel lanes in each direction south of Santa Margarita Parkway. North of the Santa Margarita Parkway interchange there are five total lanes (three northbound and two southbound). Further north (approaching Los Alisos Boulevard), the number of lanes in the northbound direction of travel increases to four lanes. As a toll road, SR-241 is intended to serve through traffic traveling relatively



long-distances. The toll road does not provide access to adjacent land except at interchanges.

Major Arterial

The major arterial is generally a six-lane section with a curbed median, although an eight-lane version of this classification (designated as a Principal arterial by OCTA) can be accommodated if necessary. A major arterial is designed with emphasis for automobile, goods movement, and/or transit, and is designed to accommodate an upper limit of approximately 56,300 vehicle trips per day. This roadway may consist of three through lanes, two left-turn lanes and a dedicated right-turn lane and may carry a large volume of regional through traffic not handled by the Toll Road system. The three major arterial roadways in the City are Santa Margarita Parkway, Antonio Parkway, and Alicia Parkway. On-street parking is restricted on major arterials; in its place, there are pavement markings for Class II on-street bike lanes.

Primary Arterial

A primary arterial roadway is a four-lane divided (raised median) roadway that may be designed with emphasis for automobile, goods movement, transit, and/or bicycle. Primary arterials function similarly to major arterials with the principal difference being capacity. A primary arterial may consist of two through lanes, one left-turn lane and a dedicated right-turn lane. An additional left-turn lane or optional right-turn lane may be allowed if warranted by traffic demand. On-street parking is restricted on primary arterials, but pavement markings are provided for Class II on-street bike lanes. While the primary arterial is designed to accommodate four through travel lanes, the pavement and right-of-way width may be able to accommodate up to six-through travel lanes.

Secondary Arterial

A secondary arterial is also a four-lane roadway, although it may be divided or undivided. In the City, secondary arterials generally include divided raised medians. A secondary arterial serves as a collector, distributing traffic between local streets and major and primary arterials. Roadway shoulders may accommodate exclusive bike lanes or on-street parking. Sidewalks may be curb-adjacent or separated from the roadway by a landscaped parkway. A secondary arterial may consist of two through lanes, one left-turn lane and a dedicated right-turn lane. An additional left-turn lane or optional right-turn lane may be allowed if warranted by traffic demand. Many of the secondary arterials within the City effectively function as primary arterials without the on-street parking restrictions.

Collector

Collectors move traffic from local streets to arterial roads. Unlike arterials, collector roads are designed to provide access to residential areas. There are two versions of the collector classification: the "Collector – 2 Lanes Divided" which can have a painted or raised median utilized as left turn pockets where needed while also providing a shoulder for on-street parking or cyclists, and the "Collector – 2 Lanes Undivided," which is a



conventional two-lane section with shoulders that can accommodate on-street parking and/or cyclists.

EXISTING ROADWAY CONDITIONS

Existing Roadway Segment Average Daily Traffic

Existing (2016) average daily traffic (ADT) volumes on arterial roadways throughout the Study Area are shown on [Exhibit 5.4-1, Existing \(2016\) Average Daily Traffic Volumes](#). The ADT volumes along the arterial roadways are based upon the 24-hour ADT counts collected during peak school conditions in the spring of 2016. [Exhibit 5.4-2, Existing \(2016\) Traffic Flow Map](#), presents a traffic flow map illustrating the existing traffic volumes based on the distribution of traffic on the roadway network. The highest traffic volumes tend to occur near the SR-241 and adjacent business park and commercial retail areas.

Existing Roadway Segment Capacity

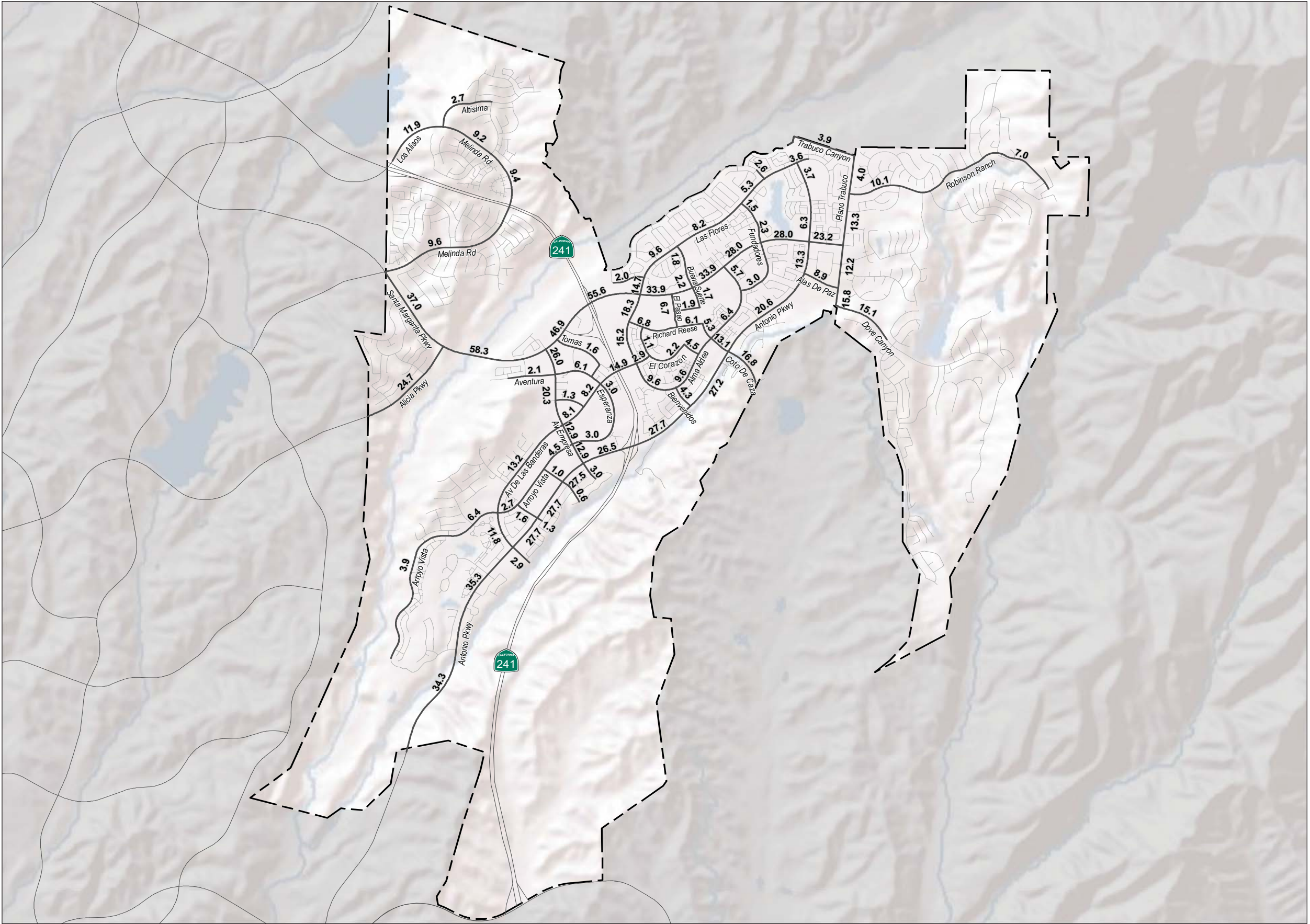
Roadway segment analysis is generally performed for planning purposes and is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), pedestrians and bicycle traffic. [Table 5.4-2, Roadway Segment Vehicle Capacity Thresholds](#), presents the roadway segment vehicle capacities that represent the theoretical maximum two-way ADT volumes which any given roadway can accommodate within one day, given typical peak hour characteristics. The roadway segment capacities are consistent with the MPAH roadway design standards.

Table 5.4-2
Roadway Segment Vehicle Capacity Thresholds

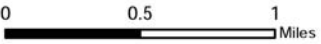
Roadway Classification	Description	Lanes	Daily Capacity (LOS "E")
Major Arterial	Six Lanes Divided	6D	56,300
Primary Arterial	Four Lanes Divided	4D	37,500
Secondary Arterial	Four Lanes Divided	4D	31,300
Collector (Two Lanes Divided)	Two Lanes Divided	2D	18,800
Collector (Two Lanes Undivided)	Two Lanes Undivided	2U	12,500
Notes: These roadway capacities are approximate figures only and are used at the General Plan level. They are affected by such factors as intersections (numbers & configuration), degrees of access control, roadway grades, design geometrics (horizontal & vertical alignment).			
Source: Urban Crossroads, City of Rancho Santa Margarita General Plan Traffic Impact Analysis, August 2, 2018.			



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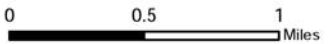
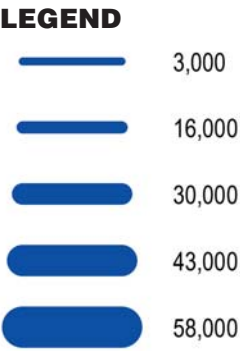
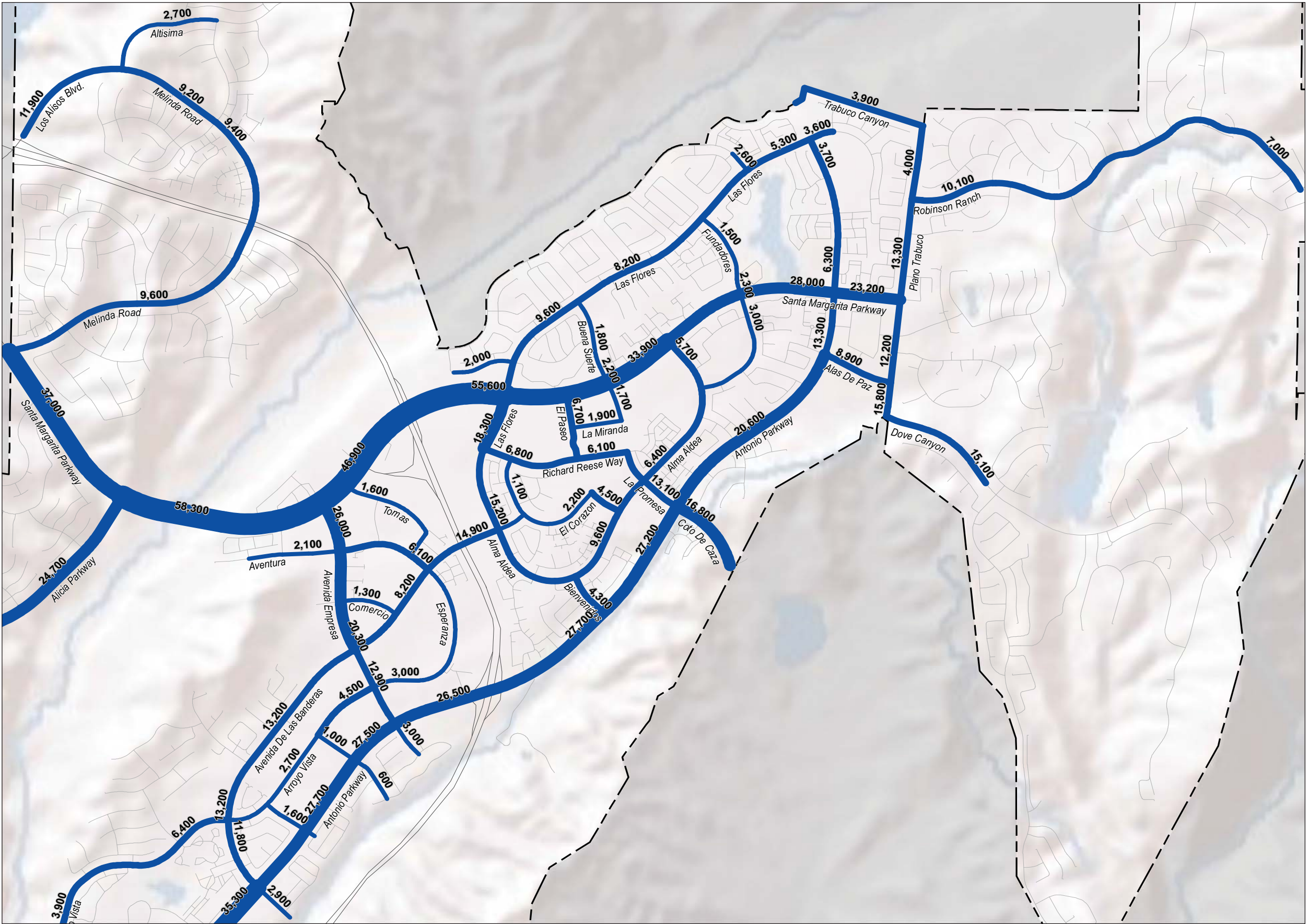
LEGEND
10.0 Vehicles Per Day (1000s)



Source: Urban Crossroads.



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Source: Urban Crossroads.



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Table 5.4-3, *Existing (2016) Roadway Segment Capacity Analysis*, provides a summary of the existing roadway segment capacity analysis based on daily capacity thresholds identified in Table 5.4-2. The roadway segment analysis compares the ADT volume with the capacity to arrive at a volume-to-capacity (v/c) ratio. Based on the v/c ratio, each Study Area roadway segment is classified into one of four categories:

- Acceptable (v/c 0.00-0.79);
- Approaching Capacity (v/c 0.80-1.00);
- Potentially Exceeds Capacity (v/c 1.01-1.25); or
- Exceeds Capacity (v/c > 1.26).

As shown in Table 5.4-3, out of the 51 study roadway segments within the City, the following three roadway segments are “approaching” or “potentially exceeding” the average daily vehicle capacity thresholds:

- Potentially Exceeding:
 - Santa Margarita Parkway between Alicia Parkway and Avenida Empresa (ID #46);
- Approaching:
 - Santa Margarita Parkway between Avenida Empresa and the SR-241 eastbound ramps (ID #47); and
 - Santa Margarita Parkway between the SR-241 WB ramps and Avenida de Las Flores (ID #48).

The remaining 48 roadway segments operate at acceptable v/c of less than 0.80.



**Table 5.4-3
Existing (2016) Roadway Segment Capacity Analysis**

ID	Street Name	Segment	Existing (2016) ADT	Existing Lanes	Existing Capacity ¹	Existing v/c	Average Daily Vehicle Capacity Threshold ²
1	Alas De Paz	Antonio Parkway to Plano Trabuco Road	8,900	4D	31,300	0.28	Acceptable
2	Alicia Parkway	Santa Margarita Parkway to City Limits	24,700	6D	56,300	0.44	Acceptable
3	Alma Aldea	Avenida De Las Banderas to La Promesa	9,600	4D	31,300	0.31	Acceptable
4	Alma Aldea	La Promesa to Avenida De Las Fundadores	6,400	2D	18,800	0.34	Acceptable
5	Alma Aldea	Avenida De Las Fundadores to Santa Margarita Parkway	5,700	2D	18,800	0.30	Acceptable
6	Antonio Parkway	City Limits to Tijeras Creek	34,300	6D	56,300	0.61	Acceptable
7	Antonio Parkway	Tijeras Creek to Avenida De Las Banderas	35,300	6D	56,300	0.63	Acceptable
8	Antonio Parkway	Avenida De Las Banderas to Valeroso	27,700	6D	56,300	0.49	Acceptable
9	Antonio Parkway	Valeroso to Avenida Empresa	27,500	6D	56,300	0.49	Acceptable
10	Antonio Parkway	Avenida Empresa to SR-241 Southbound Ramps	26,500	6D	56,300	0.47	Acceptable
11	Antonio Parkway	SR-241 Northbound Ramps to Bienvenidos	27,700	6D	56,300	0.49	Acceptable
12	Antonio Parkway	Bienvenidos to La Promesa/Coto De Caza Drive	27,200	6D	56,300	0.48	Acceptable
13	Antonio Parkway	La Promesa/Coto De Caza Drive to Alas De Paz	20,600	6D	56,300	0.37	Acceptable
14	Antonio Parkway	Alas De Paz to Santa Margarita Parkway	13,300	6D	56,300	0.24	Acceptable
15	Antonio Parkway	Santa Margarita Parkway to Vereda Laguna	6,300	4D	31,300	0.20	Acceptable
16	Antonio Parkway	Vereda Laguna to Avenida De Las Flores	3,700	4D	31,300	0.12	Acceptable
17	Avenida De Las Banderas	Antonio Parkway to Arroyo Vista	11,800	4D	31,300	0.38	Acceptable
18	Avenida De Las Banderas	Arroyo Vista to Avenida Empresa	13,200	4D	31,300	0.42	Acceptable
19	Avenida De Las Banderas	Avenida Empresa to Comercio	8,100	4D	31,300	0.26	Acceptable
20	Avenida De Las Banderas	Comercio to Aventura/Esperanza	8,200	4D	31,300	0.26	Acceptable
21	Avenida De Las Banderas	Aventura/Esperanza to Avenida De Las Flores/Alma Aldea	14,900	4D	31,300	0.48	Acceptable
22	Avenida De Las Flores	Avenida De Las Banderas to El Portal	15,200	4D	31,300	0.49	Acceptable
23	Avenida De Las Flores	El Portal to Santa Margarita Parkway	18,300	4D	31,300	0.58	Acceptable
24	Avenida De Las Flores	Santa Margarita Parkway Via Con Dios	14,700	4D	31,300	0.47	Acceptable
25	Avenida De Las Flores	Via Con Dios to Buena Suerte	9,600	2D	18,800	0.51	Acceptable
26	Avenida De Las Flores	Buena Suerte to Avenida De Las Fundadores	8,200	2D	18,800	0.44	Acceptable
27	Avenida De Las Flores	Avenida De Las Fundadores to Antonio Parkway	5,300	2D	18,800	0.28	Acceptable
28	Avenida Empresa	Santa Margarita Parkway to Aventura	26,000	4D	37,500	0.69	Acceptable
29	Avenida Empresa	Aventura to Avenida De Las Banderas	20,300	4D	37,500	0.54	Acceptable
30	Avenida Empresa	Avenida De Las Banderas to Antonio Parkway	12,900	4D	37,500	0.34	Acceptable
31	Bienvenidos	Antonio Parkway to Alma Aldea	4,300	4D	31,300	0.14	Acceptable
32	Coto De Caza Drive	Antonio Parkway to Entry Gate	16,800	4D	31,300	0.54	Acceptable
33	Dove Canyon Drive	Plano Trabuco Road to Entry Gate	15,100	4D	31,300	0.48	Acceptable



**Table 5.4-3 [continued]
Existing (2016) Roadway Segment Capacity Analysis**

ID	Street Name	Segment	Existing (2016) ADT	Existing Lanes	Existing Capacity ¹	Existing v/c	Average Daily Vehicle Capacity Threshold ²
34	La Promesa	Antonio Parkway to Alma Aldea	13,100	4D	31,300	0.42	Acceptable
35	Los Alisos Boulevard	SR-241 Eastbound Ramps to Altisima	11,900	4D	31,300	0.38	Acceptable
36	Melinda Road	Altisima to Rancho Trabuco	9,200	4D	31,300	0.29	Acceptable
37	Melinda Road	Rancho Trabuco to SR-241 Overcrossing	9,400	4D	31,300	0.30	Acceptable
38	Melinda Road	SR-241 Overcrossing to Santa Margarita Parkway	9,600	4D	31,300	0.31	Acceptable
39	Plano Trabuco Road	Dove Canyon to Alas De Paz	15,800	4D	31,300	0.50	Acceptable
40	Plano Trabuco Road	Alas De Paz to Santa Margarita Parkway	12,200	4D	31,300	0.39	Acceptable
41	Plano Trabuco Road	Santa Margarita Parkway to Robinson Ranch	13,300	4D	31,300	0.42	Acceptable
42	Plano Trabuco Road	Robinson Ranch to Trabuco Canyon Road	4,000	2U	12,500	0.32	Acceptable
43	Robinson Ranch Road	Plano Trabuco Road to Lindsay Drive	10,100	4D	31,300	0.32	Acceptable
44	Robinson Ranch Road	East of Lindsay Drive	7,000	2U	12,500	0.56	Acceptable
45	Santa Margarita Parkway	Melinda Road to Alicia Parkway	37,000	6D	56,300	0.66	Acceptable
46	Santa Margarita Parkway	Alicia Parkway to Avenida Empresa	58,300	6D	56,300	1.04	Potentially Exceeds
47	Santa Margarita Parkway	Avenida Empresa to SR-241 EB Ramps	46,900	6D	56,300	0.83	Approaching
48	Santa Margarita Parkway	SR-241 WB Ramps to Avenida De Las Flores	55,600	6D	56,300	0.99	Approaching
49	Santa Margarita Parkway	Avenida De Las Flores to Alma Aldea	33,900	6D	56,300	0.60	Acceptable
50	Santa Margarita Parkway	Alma Aldea to Antonio Parkway	28,000	6D	56,300	0.50	Acceptable
51	Santa Margarita Parkway	Antonio Parkway to Plano Trabuco Road	23,200	6D	56,300	0.41	Acceptable
Notes: 1 Roadway Segment Vehicle Capacity Thresholds (See Table 5.4-2) 2 The Average Daily Vehicle Capacity Threshold is determined by the following v/c ratio ranges: 0.00 - 0.79 = "Acceptable;" 0.80 - 1.00 = "Approaching Capacity;" 1.01 - 1.25 = "Potentially Exceeds Capacity;" and 1.26+ = "Exceeds Capacity."							
Source: Urban Crossroads, City of Rancho Santa Margarita General Plan Traffic Impact Analysis, August 2, 2018.							



Existing Vehicle Miles Traveled

VMT is a key measure of effectiveness associated with various initiatives intended to reduce emissions, including GHG emissions. The California Air Pollution Control Officers Association (CAPCOA) publishes a resource for local governments to assess emission reductions from GHG mitigation measures. According to CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* (August 2010), Land Use and Circulation Element policies can be a means of reducing VMT. The CAPCOA report recognizes that land use planning provides the best opportunity to influence GHG emissions through a reduction in overall VMT. This is accomplished by reducing the distance people travel in combination with a substantial increase in local job opportunities. In addition to land use-based VMT reductions, further reductions (while limited) are possible by providing alternative transportation options.

The CAPCOA report is primarily focused on the quantification of project-level mitigation measures. The VMT estimates for the City have been calculated using the Orange County Transportation Analysis Model (OCTAM). This is possible since the OCTAM traffic model calculates average trip lengths based on actual land use designations, characteristics, and interactions. The VMT extracted from the model considers land use patterns and trip generation, as well as the distribution of these trips within the City and between the City and surrounding areas.

It is also important to recognize that each vehicle trip has two ends, commonly referred to as an origin and a destination. Therefore, the calculation must divide the initial VMT estimate in half to account for the contribution of both ends of the trip.

For trips internal to the City, the VMT attributable to both ends of the trip is accounted for. Trips that involve one trip-end outside the City are allocated 50 percent to the City and 50 percent to the other end of the trip. All shopping, recreational, social, and work-related trips contribute to the VMT estimates. The VMT for the City includes the following:

- 100 percent of the internal to internal trips;
- 50 percent of the internal to external trips;
- 50 percent of the external to internal trips; and
- 0 percent of the external to external trips.

Table 5.4-4, *Existing Vehicle Miles Traveled*, provides a summary of the VMT under existing conditions. As shown in Table 5.4-4, the City currently produces a total of approximately 1,016,813 VMT per day.



Table 5.4-4
Existing Vehicle Miles Traveled

Condition	Vehicle Miles Traveled (VMT)				
	AM Period	PM Period	Midday	Nighttime	Daily
Existing Conditions (2016)	288,293	332,077	218,329	178,114	1,016,813
Note: Based on OCTAM model estimates for existing conditions.					
Source: Urban Crossroads, City of Rancho Santa Margarita General Plan Traffic Impact Analysis, August 2, 2018.					

BUS SERVICE NETWORK

The OCTA provides limited bus service within the City and the surrounding area as shown on Traffic Impact Analysis Exhibit 2-6, *City of Rancho Santa Margarita Bus Service*; refer to [Appendix C](#). In October 2016, bus service within the City was reduced to a single route (Route 82) focused on Santa Margarita Parkway. Route 82 provides transit service along the six-lane major roads (Santa Margarita Parkway, Alicia Parkway, and Antonio Parkway), with stretches along Plano Trabuco and Alas de Paz. Route 87 also serves a small western portion of the City along Alicia Parkway and Santa Margarita Parkway connecting Rancho Santa Margarita to nearby cities to the southwest, including Laguna Woods, Laguna Hills, Aliso Viejo, and Laguna Niguel.

In response to the reduction in bus service, the City prepared a Transit Feasibility Study in September 2017. The Transit Feasibility Study was prepared to determine if there is sufficient demand to support a local circulator or regional transit service within available funding limits. The Transit Feasibility Study was funded through Project V, an OCTA-sponsored program that allows cities to study potential community-based local transit services that complement regional services and meet specific community needs. However, the Transit Feasibility Study found that there was not enough demand for bus services in the City to pursue Project V capital funding. In addition, the analysis showed that any service plan option would likely require substantial subsidy from the City to offset annual losses due to low ridership estimates.

BICYCLE NETWORK

The 2013 Circulation Element bikeway network shown on Traffic Impact Analysis Exhibit 2-4, *Rancho Santa Margarita General Plan Bike Network*, incorporates the Trabuco Creek bikeway, a regional Class I facility located along the eastern bluff of the Arroyo Trabuco, with a separate trail bridge crossing over the SR-241 toll road; refer to [Appendix C](#). The remaining bikeway components in the City consist of Class II paved on-street bicycle lanes.

A review of the existing bikeway network suggests that many bike lane segments within the City do not include on-street parking restrictions. On-street parking currently inhibits bike lane usage and creates potential conflicts on segments of Los Alisos Boulevard, Melinda Road, Avenida de Las Flores, Alma Aldea, Alas De Paz, Plano Trabuco, Dove Canyon Drive, Avenida de Las Banderas, Avenida Empresa, and Arroyo Vista. Effective on-road bike lanes are currently in place (with parking restrictions) on Alicia Parkway, Santa Margarita Parkway, and Antonio Parkway.



TRAIL NETWORK

Located near O'Neill Regional Park, the City is adjacent to several regional multi-use off-road trails; refer to Traffic Impact Analysis Exhibit 2-5, *Rancho Santa Margarita General Plan Trail Network* in [Appendix C](#). Multi-use trails provide access for a combination of activities such as hiking, equestrian, and biking. This includes the six-mile long Arroyo Trabuco multi-use trail that extends south from O'Neil Regional Park near Trabuco Creek. Further, the Tijeras Creek multi-use trail extends approximately four miles from Plano Trabuco east of Antonio Parkway to an intersection with the Arroyo Trabuco Trail.

In addition to the regional multi-use trails maintained by Orange County Parks, several other walking trails exist within the City. Many of these walking trails are maintained by local homeowner's association for the benefit of the community.

5.4.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Initial Study Environmental Checklist, which includes questions relating to traffic and circulation. The issues presented in the Initial Study Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it would:

- 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;
- 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 (as explained in [Section 9.0, *Effects Found Not To Be Significant*](#), further analysis of this topic is not required in this EIR);
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks (as explained in [Section 9.0, *Effects Found Not To Be Significant*](#), further analysis of this topic is not required in this EIR);
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (as explained in [Section 9.0, *Effects Found Not To Be Significant*](#), further analysis of this topic is not required in this EIR);
- Result in inadequate emergency access (as explained in [Section 9.0, *Effects Found Not To Be Significant*](#), further analysis of this topic is not required in this EIR); and/or



- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

5.4.5 PROJECT IMPACTS AND MITIGATION MEASURES

TRAFFIC OPERATIONS

- **IMPLEMENTATION OF THE GENERAL PLAN UPDATE COULD CONFLICT WITH AN APPLICABLE PLAN, ORDINANCE, OR POLICY ESTABLISHING MEASURES OF EFFECTIVENESS FOR 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.**

Impact Analysis:

FORECAST METHODOLOGY

The OCTAM version 3.4.1 is maintained by OCTA and was used as the basis for estimating the future traffic conditions for the City. The OCTAM modeling area is consistent with the SCAG model, covering the entire SCAG region and using the same socioeconomic variables as the SCAG Regional Transportation Model. Updates to the model Traffic Analysis Zone (TAZ) structure and the underlying socioeconomic data were made where necessary to accurately describe the reasonably anticipated development potential associated with future land use opportunities within the City as described in the General Plan Update.

While the future traffic analysis focuses on the traffic analysis zones located within the City, the model includes all TAZs throughout the SCAG region and the County of Orange. Even though the City is nearly built out, additional future growth has been identified to ensure that the analysis reflects the potential for increased future traffic.

All future traffic volume forecasts have been developed from the OCTAM traffic model using accepted procedures for model forecast refinement and smoothing. This process describes the forecasted area-wide growth by comparing the existing and future traffic model average daily traffic volume growth for each of the roadway segments. The forecasted traffic volume growth is then added to the existing 2016 average daily traffic volumes to describe the refined future model forecasts. This refinement process ensures that each roadway segment shows reasonable anticipated growth when compared to the existing 2016 average daily traffic volumes.



FUTURE AVERAGE DAILY TRAFFIC VOLUMES

The refined future model forecast calculations for the General Plan Update are shown in Table 5.4-5, *Future Average Daily Traffic Volumes*. The traffic model forecasts reflect the expected area growth on the City's roadway network. Exhibit 5.4-3, *Future Average Daily Traffic Volumes*, presents the future average daily traffic volume forecasts.

Table 5.4-5
Future Average Daily Traffic Volumes

ID	Street Name	Segment	Existing (2016) ADT	Future (2040) ADT	Growth ¹
1	Alas De Paz	Antonio Parkway to Plano Trabuco Road	8,900	8,900	0
2	Alicia Parkway	Santa Margarita Parkway to City Limits	24,700	25,400	700
3	Alma Aldea	Avenida De Las Banderas to La Promesa	9,600	13,100	3,500
4	Alma Aldea	La Promesa to Avenida De Las Fundadores	6,400	9,800	3,400
5	Alma Aldea	Avenida De Las Fundadores to Santa Margarita Parkway	5,700	6,000	300
6	Antonio Parkway	City Limits to Tijeras Creek	34,300	36,800	2,500
7	Antonio Parkway	Tijeras Creek to Avenida De Las Banderas	35,300	37,800	2,500
8	Antonio Parkway	Avenida De Las Banderas to Valeroso	27,700	30,200	2,500
9	Antonio Parkway	Valeroso to Avenida Empresa	27,500	30,300	2,800
10	Antonio Parkway	Avenida Empresa to SR-241 Southbound Ramps	26,500	29,000	2,500
11	Antonio Parkway	SR-241 Northbound Ramps to Bienvenidos	27,700	33,600	5,900
12	Antonio Parkway	Bienvenidos to La Promesa/Coto De Caza Drive	27,200	32,800	5,600
13	Antonio Parkway	La Promesa/Coto De Caza Drive to Alas De Paz	20,600	23,300	2,700
14	Antonio Parkway	Alas De Paz to Santa Margarita Parkway	13,300	13,500	200
15	Antonio Parkway	Santa Margarita Parkway to Vereda Laguna	6,300	6,300	0
16	Antonio Parkway	Vereda Laguna to Avenida De Las Flores	3,700	3,700	0
17	Avenida De Las Banderas	Antonio Parkway to Arroyo Vista	11,800	12,400	600
18	Avenida De Las Banderas	Arroyo Vista to Avenida Empresa	13,200	13,400	200
19	Avenida De Las Banderas	Avenida Empresa to Comercio	8,100	12,000	3,900
20	Avenida De Las Banderas	Comercio to Aventura/Esperanza	8,200	12,100	3,900
21	Avenida De Las Banderas	Aventura/Esperanza to Avenida De Las Flores/Alma Aldea	14,900	19,300	4,400
22	Avenida De Las Flores	Avenida De Las Banderas to El Portal	15,200	15,200	0
23	Avenida De Las Flores	El Portal to Santa Margarita Parkway	18,300	18,300	0
24	Avenida De Las Flores	Santa Margarita Parkway Via Con Dios	14,700	15,500	800
25	Avenida De Las Flores	Via Con Dios to Buena Suerte	9,600	10,400	800
26	Avenida De Las Flores	Buena Suerte to Avenida De Las Fundadores	8,200	8,500	300
27	Avenida De Las Flores	Avenida De Las Fundadores to Antonio Parkway	5,300	5,600	300
28	Avenida Empresa	Santa Margarita Parkway to Aventura	26,000	31,400	5,400
29	Avenida Empresa	Aventura to Avenida De Las Banderas	20,300	25,900	5,600
30	Avenida Empresa	Avenida De Las Banderas to Antonio Parkway	12,900	14,100	1,200
31	Bienvenidos	Antonio Parkway to Alma Aldea	4,300	4,600	300
32	Coto De Caza Drive	Antonio Parkway to Entry Gate	16,800	24,500	7,700
33	Dove Canyon Drive	Plano Trabuco Road to Entry Gate	15,100	15,300	200
34	La Promesa	Antonio Parkway to Alma Aldea	13,100	18,000	4,900
35	Los Alisos Boulevard	SR-241 Eastbound Ramps to Altisima	11,900	13,800	1,900
36	Melinda Road	Altisima to Rancho Trabuco	9,200	11,100	1,900
37	Melinda Road	Rancho Trabuco to SR-241 Overcrossing	9,400	10,300	900
38	Melinda Road	SR-241 Overcrossing to Santa Margarita Parkway	9,600	9,700	100
39	Plano Trabuco Road	Dove Canyon to Alas De Paz	15,800	15,800	0
40	Plano Trabuco Road	Alas De Paz to Santa Margarita Parkway	12,200	12,200	0
41	Plano Trabuco Road	Santa Margarita Parkway to Robinson Ranch	13,300	20,400	7,100
42	Plano Trabuco Road	Robinson Ranch to Trabuco Canyon Road	4,000	10,200	6,200
43	Robinson Ranch Road	Plano Trabuco Road to Lindsay Drive	10,100	10,800	700
44	Robinson Ranch Road	East of Lindsay Drive	7,000	7,700	700
45	Santa Margarita Parkway	Melinda Road to Alicia Parkway	37,000	42,700	5,700
46	Santa Margarita Parkway	Alicia Parkway to Avenida Empresa	58,300	64,600	6,300

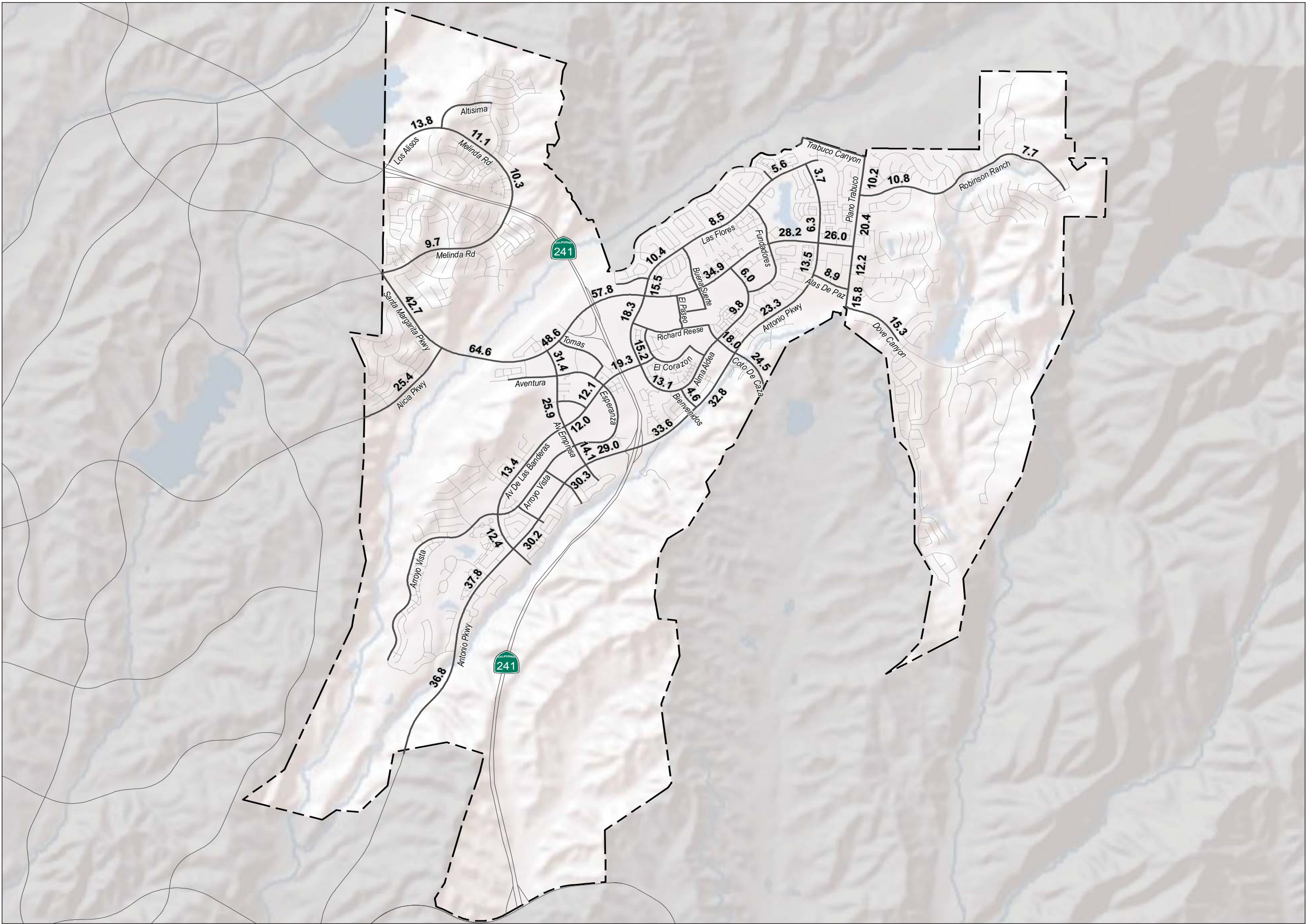


**Table 5.4-5 [continued]
Future Average Daily Traffic Volumes**

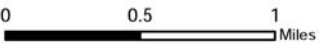
ID	Street Name	Segment	Existing (2016) ADT	Future (2040) ADT	Growth ¹
47	Santa Margarita Parkway	Avenida Empresa to SR-241 EB Ramps	46,900	48,600	1,700
48	Santa Margarita Parkway	SR-241 WB Ramps to Avenida De Las Flores	55,600	57,800	2,200
49	Santa Margarita Parkway	Avenida De Las Flores to Alma Aldea	33,900	34,900	1,000
50	Santa Margarita Parkway	Alma Aldea to Antonio Parkway	28,000	28,200	200
51	Santa Margarita Parkway	Antonio Parkway to Plano Trabuco Road	23,200	26,000	2,800
Notes:					
1 Growth represents the increase between the existing and future traffic volume forecasts from the OCTAM traffic model.					
Source: Urban Crossroads, City of Rancho Santa Margarita General Plan Traffic Impact Analysis, August 2, 2018.					



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LEGEND
10.0 Vehicles Per Day (1000s)



Source: Urban Crossroads.



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FUTURE AVERAGE DAILY TRAFFIC VOLUMES

Table 5.4-6, *Future Roadway Segment Capacity Analysis*, provides a summary of the roadway segment capacity analysis based on the capacity thresholds previously identified in Table 5.4-2.

As shown in Table 5.4-6, two roadway segments are expected to “approach” the average daily vehicle capacity thresholds, Avenida Empresa from Santa Margarita Parkway to Aventura (No. 28) and Santa Margarita Parkway from Avenida Empresa to SR-241 Eastbound Ramps (No. 47). Additionally, two roadway segments would “potentially exceed” the average daily capacity thresholds, Santa Margarita Parkway from Alicia Parkway to Avenida Empresa (No. 46) and Santa Margarita Parkway from the SR-241 Westbound Ramps to Avenida de Las Flores (No. 48).

The roadway segment analysis for future development conditions anticipated by the General Plan Update indicates that the roadway network would provide adequate capacity to accommodate projected future traffic demands on all the Study Area roadway segments, with two segments approaching capacity and two segments potentially exceeding the theoretical daily capacity.

The 2013 Circulation Element recognizes that the roadway segment analysis is used as a planning tool to evaluate the adequacy of existing roadway segment capacities. A v/c ratio greater than 1.01 (“potentially exceeds”) suggests that additional site-specific review would be required upon identification of future development projects as detailed on page 16 of the 2013 Circulation Element. Alicia Parkway to Avenida Empresa (No. 46) would “potentially exceed” the average daily capacity thresholds under existing conditions (2016) and for General Plan Update development conditions in 2040. Santa Margarita Parkway from the SR-241 Westbound Ramps to Avenida de Las Flores (No. 48) would potentially transition from “approaching” under existing conditions to “potentially exceed” by 2040. It should be noted that these roadway segments are located along Santa Margarita Parkway, which is one of three major arterials that provide regional access to the City, the others being Alicia Parkway and Antonio Parkway.

As a land use guiding document, the General Plan Update does not propose any site-specific development. Therefore, it is uncertain when these forecast traffic volumes on these roadway segments would generate a v/c ratio greater than 1.26 (“Exceeds Capacity”) as the exact location and nature of future development is currently unknown. In addition, adjacent intersections may continue to provide the lanes needed to achieve acceptable peak hour level of services and therefore segment capacity improvements may not be needed. Future development projects would be reviewed by the City's Traffic Engineer to determine if a more detailed evaluation of potential transportation system impacts would be required based on the City's traffic impact analysis requirements (Mitigation Measure T-1). Traffic performance would be assessed consistent with 2013 Circulation Element Table C-3 (Circulation System Performance Criteria).



**Table 5.4-6
Future Roadway Segment Capacity Analysis**

ID	Street Name	Segment	Future ADT	Future Capacity ¹	Future v/c	Average Daily Vehicle Capacity Threshold ²
1	Alas De Paz	Antonio Parkway to Plano Trabuco Road	8,900	31,300	0.28	Acceptable
2	Alicia Parkway	Santa Margarita Parkway to City Limits	25,400	56,300	0.45	Acceptable
3	Alma Aldea	Avenida De Las Banderas to La Promesa	13,100	31,300	0.42	Acceptable
4	Alma Aldea	La Promesa to Avenida De Las Fundadores	9,800	18,800	0.52	Acceptable
5	Alma Aldea	Avenida De Las Fundadores to Santa Margarita Parkway	6,000	18,800	0.32	Acceptable
6	Antonio Parkway	City Limits to Tijeras Creek	36,800	56,300	0.65	Acceptable
7	Antonio Parkway	Tijeras Creek to Avenida De Las Banderas	37,800	56,300	0.67	Acceptable
8	Antonio Parkway	Avenida De Las Banderas to Valeroso	30,200	56,300	0.54	Acceptable
9	Antonio Parkway	Valeroso to Avenida Empresa	30,300	56,300	0.54	Acceptable
10	Antonio Parkway	Avenida Empresa to SR-241 Southbound Ramps	29,000	56,300	0.52	Acceptable
11	Antonio Parkway	SR-241 Northbound Ramps to Bienvenidos	33,600	56,300	0.60	Acceptable
12	Antonio Parkway	Bienvenidos to La Promesa/Coto De Caza Drive	32,800	56,300	0.58	Acceptable
13	Antonio Parkway	La Promesa/Coto De Caza Drive to Alas De Paz	23,300	56,300	0.41	Acceptable
14	Antonio Parkway	Alas De Paz to Santa Margarita Parkway	13,500	56,300	0.24	Acceptable
15	Antonio Parkway	Santa Margarita Parkway to Vereda Laguna	6,300	31,300	0.20	Acceptable
16	Antonio Parkway	Vereda Laguna to Avenida De Las Flores	3,700	31,300	0.12	Acceptable
17	Avenida De Las Banderas	Antonio Parkway to Arroyo Vista	12,400	31,300	0.40	Acceptable
18	Avenida De Las Banderas	Arroyo Vista to Avenida Empresa	13,400	31,300	0.43	Acceptable
19	Avenida De Las Banderas	Avenida Empresa to Comercio	12,000	31,300	0.38	Acceptable
20	Avenida De Las Banderas	Comercio to Aventura/Esperanza	12,100	31,300	0.39	Acceptable
21	Avenida De Las Banderas	Aventura/Esperanza to Avenida De Las Flores/Alma Aldea	19,300	31,300	0.62	Acceptable
22	Avenida De Las Flores	Avenida De Las Banderas to El Portal	15,200	31,300	0.49	Acceptable
23	Avenida De Las Flores	El Portal to Santa Margarita Parkway	18,300	31,300	0.58	Acceptable
24	Avenida De Las Flores	Santa Margarita Parkway Via Con Dios	15,500	31,300	0.50	Acceptable
25	Avenida De Las Flores	Via Con Dios to Buena Suerte	10,400	18,800	0.55	Acceptable
26	Avenida De Las Flores	Buena Suerte to Avenida De Las Fundadores	8,500	18,800	0.45	Acceptable
27	Avenida De Las Flores	Avenida De Las Fundadores to Antonio Parkway	5,600	18,800	0.30	Acceptable
28	Avenida Empresa	Santa Margarita Parkway to Aventura	31,400	37,500	0.84	Approaching
29	Avenida Empresa	Aventura to Avenida De Las Banderas	25,900	37,500	0.69	Acceptable
30	Avenida Empresa	Avenida De Las Banderas to Antonio Parkway	14,100	37,500	0.38	Acceptable
31	Bienvenidos	Antonio Parkway to Alma Aldea	4,600	31,300	0.15	Acceptable
32	Coto De Caza Drive	Antonio Parkway to Entry Gate	24,500	31,300	0.78	Acceptable
33	Dove Canyon Drive	Plano Trabuco Road to Entry Gate	15,300	31,300	0.49	Acceptable
34	La Promesa	Antonio Parkway to Alma Aldea	18,000	31,300	0.58	Acceptable



**Table 5.4-6 [continued]
Future Roadway Segment Capacity Analysis**

ID	Street Name	Segment	Future ADT	Future Capacity ¹	Future v/c	Average Daily Vehicle Capacity Threshold ²
35	Los Alisos Boulevard	SR-241 Eastbound Ramps to Altisima	13,800	31,300	0.44	Acceptable
36	Melinda Road	Altisima to Rancho Trabuco	11,100	31,300	0.35	Acceptable
37	Melinda Road	Rancho Trabuco to SR-241 Overcrossing	10,300	31,300	0.33	Acceptable
38	Melinda Road	SR-241 Overcrossing to Santa Margarita Parkway	9,700	31,300	0.31	Acceptable
39	Plano Trabuco Road	Dove Canyon to Alas De Paz	15,800	31,300	0.50	Acceptable
40	Plano Trabuco Road	Alas De Paz to Santa Margarita Parkway	12,200	31,300	0.39	Acceptable
41	Plano Trabuco Road	Santa Margarita Parkway to Robinson Ranch	20,400	31,300	0.65	Acceptable
42	Plano Trabuco Road	Robinson Ranch to Trabuco Canyon Road	10,200	31,300	0.33	Acceptable
43	Robinson Ranch Road	Plano Trabuco Road to Lindsay Drive	10,800	31,300	0.35	Acceptable
44	Robinson Ranch Road	East of Lindsay Drive	7,700	12,500	0.62	Acceptable
45	Santa Margarita Parkway	Melinda Road to Alicia Parkway	42,700	56,300	0.76	Acceptable
46	Santa Margarita Parkway	Alicia Parkway to Avenida Empresa	64,600	56,300	1.15	Potentially Exceeds
47	Santa Margarita Parkway	Avenida Empresa to SR-241 EB Ramps	48,600	56,300	0.86	Approaching
48	Santa Margarita Parkway	SR-241 WB Ramps to Avenida De Las Flores	57,800	56,300	1.03	Potentially Exceeds
49	Santa Margarita Parkway	Avenida De Las Flores to Alma Aldea	34,900	56,300	0.62	Acceptable
50	Santa Margarita Parkway	Alma Aldea to Antonio Parkway	28,200	56,300	0.50	Acceptable
51	Santa Margarita Parkway	Antonio Parkway to Plano Trabuco Road	26,000	56,300	0.46	Acceptable

Notes:

1 Roadway Segment Vehicle Capacity Thresholds (See Table 5.4-2).

2 The Average Daily Vehicle Capacity Threshold is determined by the following v/c ratio ranges: 0.00 - 0.79 = "Acceptable;" 0.80 - 1.00 = "Approaching Capacity;" 1.01 - 1.25 = "Potentially Exceeds Capacity;" and 1.26+ = "Exceeds Capacity."

Source: Urban Crossroads, City of Rancho Santa Margarita General Plan Traffic Impact Analysis, August 2, 2018.



Further, as detailed in the 2013 Circulation Element, Policy 1.1 encourages providing and maintaining a circulation system that promotes safety and satisfies demand created by land uses in Rancho Santa Margarita. 2013 Circulation Element Policy 1.2 requires improvements to the circulation system roadways in concert with land development to maintain sufficient levels of service. 2013 Circulation Element Policy 1.3 encourages coordinating improvements to and maintenance of the City's circulation system with other major transportation improvement programs. As stated above, the General Plan Update itself is a long-range regulatory planning document and does not propose any specific development. However, future individual projects developed in accordance with the General Plan Update would be guided by 2013 Circulation Element goals and policies and undergo individual CEQA review, which may require preparation of a traffic impact analysis to determine potential project impacts on the City's roadway network (Mitigation Measure T-1). If potential impacts are determined at that time, project-specific mitigation measures requiring improvements or funding for future improvements would be specified. As such, the General Plan Update would result in a less than significant impact on roadway segment capacities with implementation of Mitigation Measure T-1.

FUTURE VEHICLE MILES TRAVELED

As discussed above, per SB 743, OPR is working on providing guidance on a threshold to determine a VMT impact. Draft guidelines have been released for comments, however no final guidance has been adopted. Thus, the following VMT discussion has been provided for information purposes only to illustrate how the General Plan Update may affect VMT.

Table 5.4-7, *Future Vehicle Miles Traveled*, provides a summary of VMT under future conditions with development anticipated by the General Plan Update. As shown in Table 5.4-7, the City is expected to produce a total VMT of approximately 1,106,393 per day with implementation of the General Plan Update, which represents an increase of 89,580 VMT or nine percent over existing conditions.

**Table 5.4-7
Future Vehicle Miles Traveled**

Condition	Vehicle Miles Traveled				
	AM Period	PM Period	Midday	Nighttime	Daily
Existing	288,293	332,077	218,329	178,114	1,016,813
Future	307,546	355,841	245,238	197,768	1,106,393
Growth	19,253	23,764	26,909	19,654	89,580
Percent Growth (%)	7%	7%	12%	11%	9%

Source: Urban Crossroads, City of Rancho Santa Margarita General Plan Traffic Impact Analysis, August 2, 2018.

While implementation of the General Plan Update would increase VMT, the proposed General Plan Update also includes goals and policies that encourage VMT reduction, including the introduction of a new Mixed-Use (MU) land use designation. The intent of the MU designation is to encourage more flexible, compact, and diverse uses by providing the ability for development projects to combine compatible uses in a variety



of ways. The optimal mixed-use development would be adjacent to major employment areas; be located near the City center or existing commercial centers with enough surrounding density to support retail; and promote walkability.

Additionally, the proposed Land Use Element also includes several goals and policies related to encouraging mixed-use development, walkable neighborhoods, and multimodal opportunities that would help encourage the reduction of VMT for residents and visitors of the City. The proposed Land Use Element includes Goal 4 which encourages integrating transportation and land use planning together to provide mobility options and comfort for pedestrians, bicyclists, transit users, and personal vehicles. Land Use Element Policy 4.1 establishes appropriately scaled car-free and pedestrian-only zones in high pedestrian demand locations. Land Use Element Policy 4.2 ensures that City rights-of-way provide adequate infrastructure for the movement of vehicles, bicycles, and pedestrians with facilities that provide safety and comfort for all transportation modes. Land Use Element Policy 4.5 supports transit, bicycle, and pedestrian improvements that connect within the City and to neighboring jurisdictions. Land Use Element Policy 4.6 encourages nodes of interest and activity, public open spaces, well-planned development, mixed-use projects, and signature commercial uses that are highly accessible by pedestrians, bicyclists, and transit users.

Further, the 2013 Circulation Element includes several policies related to providing a safe and efficient pedestrian-friendly circulation system (2013 Circulation Element Policy 1.4) and incorporating design features into public improvement projects that promote and support the use of public and alternative modes of transportation (2013 Circulation Element Policy 3.5).

Proposed General Plan Update Goals and Policies:

LAND USE ELEMENT

Goal 4: Integrate transportation and land use planning to provide mobility options and comfort for pedestrians, bicyclists, transit users, and personal vehicles.

- Policy 4.1: Establish appropriately scaled car-free and pedestrian-only zones in high pedestrian demand locations.
- Policy 4.2: Ensure that City rights-of-way provide adequate infrastructure for the movement of vehicles, bicycles, and pedestrians with facilities that provide safety and comfort for all transportation modes.
- Policy 4.5: Support transit, bicycle, and pedestrian improvements that connect within the City and to neighboring jurisdictions.
- Policy 4.6: Encourage nodes of interest and activity, public open spaces, well-planned development, mixed-use projects, and signature commercial uses that are highly accessible by pedestrians, bicyclists, and transit users.



Mitigation Measures:

- T-1 As determined by the City Traffic Engineer, projects that are subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) and generate 50 or more peak hour trips shall be required to prepare a Traffic Impact Analysis to assess potential project-specific impacts in accordance with CEQA.

Level of Significance After Mitigation: Less Than Significant Impact With Mitigation Incorporated.

PUBLIC TRANSIT, BICYCLE, OR PEDESTRIAN FACILITIES

- **IMPLEMENTATION OF THE GENERAL PLAN UPDATE 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.**

Impact Analysis: Development associated with the General Plan Update would not conflict with or interfere with any adopted policies, plans or programs related to public transit, bicycle, or pedestrian facilities. Instead, goals and policies proposed under the General Plan Update promote and support multimodal opportunities within the City. Specifically, proposed Land Use Element Goal 4 is aimed towards integrating transportation and land use planning to provide mobility options and comfort for pedestrians, bicyclists, transit users, and personal vehicles. Land Use Element Policy 4.1 encourages establishing appropriately scaled car-free and pedestrian-only zones in high pedestrian demand locations; Land Use Element Policy 4.2 ensures the City's rights-of-way provide adequate infrastructure for the safe and comfortable movement of vehicles, bicyclists, and pedestrians; and Land Use Element Policy 4.3 encourages balancing street space for alternative transportation options with on-street parking. Further, Land Use Element Policy 4.4 supports the creation of multiuse trails within the City and their connection to regional trails; Land Use Element Policy 4.5 supports transit, bicycle, and pedestrian improvements that connect within the City and to neighboring jurisdictions; and Land Use Element Policy 4.6 encourages nodes of interest and activity, public open spaces, and other development areas that are highly accessible by pedestrians, bicyclists, and transit users. Additionally, proposed Land Use Element Goal 12 is aimed towards, among other things, providing a balance of high-quality active and passive public open spaces, a regional trail system, and recreation facilities based on community needs. Land Use Element Policy 12.5 encourages coordination with adjacent jurisdictions to facilitate regional trail connections.

Overall, the General Plan Update supports a multi-modal transportation network. Alternative modes of transportation are provided and encouraged through the provision of various pedestrian, bicyclist, and transit user opportunities. The proposed project would not conflict with adopted policies, plans, or programs related to public transit, bicycle, or pedestrian facilities, nor impact the performance or safety of these systems. Impacts would be less than significant in this regard.



Proposed General Plan Update Policies and Actions:

LAND USE ELEMENT

Goal 4: Integrate transportation and land use planning to provide mobility options and comfort for pedestrians, bicyclists, transit users, and personal vehicles.

- Policy 4.1: Establish appropriately scaled car-free and pedestrian-only zones in high pedestrian demand locations.
- Policy 4.2: Ensure that City rights-of-way provide adequate infrastructure for the movement of vehicles, bicycles, and pedestrians with facilities that provide safety and comfort for all transportation modes.
- Policy 4.3: Balance street space allocated for alternative transportation options with parking when determining the appropriate future use of street space.
- Policy 4.4: Support the creation of multiuse trails within the City and their connection to regional trails in order to provide enhanced access to open space, promote alternative transportation options, and increase recreational opportunities.
- Policy 4.5: Support transit, bicycle, and pedestrian improvements that connect within the City and to neighboring jurisdictions.
- Policy 4.6: Encourage nodes of interest and activity, public open spaces, well-planned development, mixed-use projects, and signature commercial uses that are highly accessible by pedestrians, bicyclists, and transit users.

Goal 12: Provide a balance of high-quality active and passive public open spaces, a regional trail system, and recreation facilities based on community needs and the ability of the City to finance, construct, maintain, and operate facilities now and in the future.

- Policy 12.5: Coordinate with adjacent jurisdictions to facilitate regional trail connections.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.



5.4.6 CUMULATIVE IMPACTS

- **FUTURE DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE GENERAL PLAN UPDATE COULD RESULT IN CUMULATIVE TRAFFIC AND CIRCULATION IMPACTS.**

Impact Analysis: Cumulative traffic impacts are analyzed in terms of impacts within the City of Rancho Santa Margarita and impacts to the traffic system in neighboring communities. Development associated with implementation of the General Plan Update would involve an increase in residential and non-residential development above existing conditions. As stated in the discussions above and shown in Tables 5.4-6 and 5.4-7, the project would not substantially impact Study Area roadway segment capacities; however, two roadway segments would “potentially exceed” the average daily capacity thresholds, Santa Margarita Parkway from Alicia Parkway to Avenida Empresa (No. 46) and Santa Margarita Parkway from the SR-241 Westbound Ramps to Avenida de Las Flores (No. 48) depending upon the type and location of future site-specific development. Implementation of Mitigation Measure T-1 would reduce potential impacts to the City's traffic operations to less than significant levels. Further, while implementation of the General Plan Update would increase VMT by approximately nine percent over existing conditions, the proposed General Plan Update and current 2013 Circulation Element include goals and policies that guide development towards VMT reductions in the future.

Future development within the Study Area associated with the General Plan Update may increase ADT on Study Area roadway segments and may increase Citywide VMT. However, since the General Plan Update would result in less than significant impacts to traffic and circulation with implementation of Mitigation Measure T-1, the project's incremental effect would not result in a cumulatively considerable impact. The proposed Land Use Element also includes several goals and policies related to integrating transportation and land use planning to provide mobility options and comfort for pedestrians, bicyclists, transit users, and personal vehicles, and providing a balance of high-quality active and passive public open spaces, a regional trail system, and recreation facilities based on community needs (Land Use Element Policies 4.1 through 4.6, and 12.5). Overall, implementation of the General Plan Update would not result in cumulatively considerable traffic and circulation impacts with implementation of Mitigation Measure T-1. Impacts would be reduced to less than significant levels in this regard.

Proposed General Plan Update Policies and Actions: Refer to the General Plan Update goals and policies cited above.

Mitigation Measures: Refer to Mitigation Measure T-1.

Level of Significance After Mitigation: Less Than Significant Impact With Mitigation Incorporated.



5.4.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Traffic and circulation impacts associated with implementation of the General Plan Update would be less than significant with implementation of the identified mitigation measure. No significant unavoidable traffic and circulation impacts would occur as a result of the General Plan Update.

5.4.8 SOURCES CITED

Orange County Transportation Authority, *2017 Orange County Congestion Management Program*, October 2017, <http://www.octa.net/pdf/2017%20Final%20CMP.pdf>, accessed November 15, 2018.

Urban Crossroads, *City of Rancho Santa Margarita General Plan Traffic Impact Analysis*, August 2, 2018.



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