



Legacy at Coto Traffic Study

Coto de Caza, CA

April 13, 2020

Prepared for:
CGV Coto, LLC

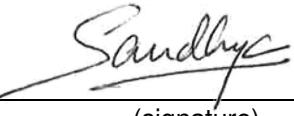
Prepared by:
Stantec Consulting Services Inc.

JUNE 2020



LEGACY AT COTO TRAFFIC STUDY

This document entitled Legacy at Coto Traffic Study was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of CGV Coto, LLC. (the "Client").

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Introduction
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1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) has performed a traffic impact analysis for the proposed Legacy at Coto (Project), a new resort style apartment development for active seniors, located in the Coto de Caza area of the County of Orange. The purpose of this study is to determine the amount of traffic generated by the proposed Project and to analyze the impacts of the Project on the circulation system for the County's review and approval. This report summarizes the traffic impact analysis prepared for the environmental review process.

1.1 PROJECT DESCRIPTION

The proposed Project consists of approximately 101 residential units geared toward active seniors and would include resort-type amenities on-site such as a gourmet restaurant with room service, concierge service, movie theater, computer café, art studio, salon, spa, valet parking, and chauffeur service in the gated community of Coto de Caza. These amenities will not be available to outside residents. A specialty retail store type of use is also planned. Primary access to the Project site will be via a driveway on Ave La Caza, with a proposed emergency access on Via Alondra. The Project site is a former Vic Braden Tennis Center. The location of the Project site is shown in Figure 1-1.

1.2 METHODOLOGY

The traffic study provides impact analysis of existing and cumulative conditions with the proposed Project. The analysis will address the Project Impacts compared with no-project scenarios. Traffic analysis data sets presented in this traffic study are as follows:

1. Existing conditions
2. Existing-plus-Project
3. Existing-plus-Cumulative Projects-without-Project
4. Existing-plus-Cumulative Projects-plus-Project

The Existing conditions scenario utilizes observed traffic counts collected in May and December 2019 for the intersections and roadway segments in the study area. The Cumulative conditions scenario considers traffic generated by all known and reasonably anticipated related projects in the proximity of the study area.

Chapter 2.0 of this report provides the transportation setting for the impact analysis, and Chapter 3.0 provides a detailed project description. Chapter 4.0 focuses on the potential traffic impacts of implementation of the Project under existing and cumulative settings.





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Figure 1-1

Project Site Location

1.2

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1.3 PERFORMANCE CRITERIA

In traffic impact studies, impact criteria are based on two primary measures. The first is “capacity,” which establishes the vehicle carrying ability of a road segment, and the second is “volume.” The volume measure is either a traffic count (in the case of existing volumes) or a traffic forecast for a future point in time. The volume-to-capacity (V/C) ratio corresponds with a level of service (LOS). Traffic LOS is designated A through F, with LOS A representing free flow conditions, and LOS F representing severe traffic congestion. Traffic flow quality for the different LOS is described in Table 1-1.

Both the V/C and LOS are used in identifying impacts. Certain LOS values are deemed acceptable by the various governing jurisdictions within the traffic analysis study area and increases in the V/C ratio which cause or contribute to the LOS being unacceptable are defined as an adverse impact. LOS D is the performance standard applied in this study for the intersections in the study area.

Peak hour intersection performance for this analysis is measured by the intersection capacity utilization (ICU) methodology. The ICU values that correspond to LOS A through F are summarized in Table 1-2.

Significant impacts are defined for this analysis as an increase of 0.01 or more in the ICU value per the Orange County GMP Transportation Implementation Manual. An increase of 0.01 or more at an intersection operating at LOS D or better is not considered a significant impact. Significant impacts shall be mitigated by the proposed Project.

1.4 STUDY AREA

The study area encompasses six intersections located in the gated community of Coto de Caza in unincorporated Orange County. The study area was determined in consultation with the Orange County Department of Public Works. Figure 1-2 illustrates the study area for the Project. There are no Orange County Congestion Management Program (CMP) monitoring intersections within the study area.

1.5 REFERENCES

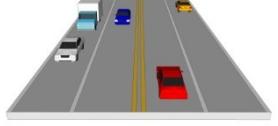
1. *Highway Capacity Manual Sixth Edition*, Transportation Research Board.
2. *Coto de Caza Lyon Subdivision Traffic Study*, Stantec, 2016.
3. *Trip Generation Manual, 10th Edition*, Institute of Transportation Engineers, 2017.
4. *Coto de Caza General Store Project Traffic Impact Study*, RK Engineering Group, 2015.



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Table 1-1 Level of Service Descriptions – Arterial Streets and Intersections

Level of Service (LOS)	Description	
A		<p>LOS A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at the intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.</p>
B		<p>LOS B describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.</p>
C		<p>LOS C describes stable operation. The ability to maneuver and change lanes at midsegment locations may be more restricted than at LOS B. Longer queues at the intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.</p>
D		<p>LOS D indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the intersections. The travel speed is between 40% and 50% of the base free-flow speed.</p>
E		<p>LOS E is characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the intersections. The travel speed is between 30% and 40% of the base free-flow speed.</p>
F		<p>LOS F is characterized by flow at extremely low speed. Congestion is likely occurring at the intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed.</p>

Source: Highway Capacity Manual Sixth Edition, Transportation Research Board, National Research Council



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Table 1-2 Intersection Level of Service Ranges (ICU and HCM Delay)

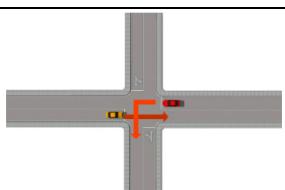
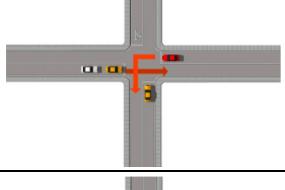
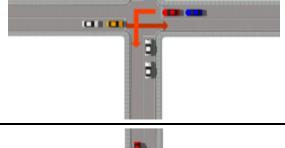
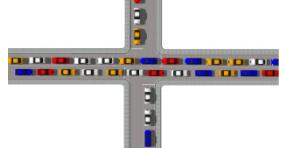
Level of Service (LOS)		Intersection Capacity Utilization (ICU)
A		0.00 – 0.60
B		0.61 – 0.70
C		0.71 – 0.80
D		0.81 – 0.90
E		0.91 – 1.00
F		Above 1.00
Source: Orange County Congestion Management Program		





Figure 1-2

Study Area

1.6

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Transportation Setting
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2.0 TRANSPORTATION SETTING

This chapter describes the transportation setting for the proposed Project. Existing traffic conditions in the traffic analysis study area are summarized.

2.1 EXISTING ROADWAY SYSTEM

As noted above, the study area used for this analysis includes six intersections located in the gated community of Coto de Caza in the unincorporated Orange County. The study area was determined in consultation with the Orange County Department of Public Works.

The study area includes one intersection (Via Pajaro and Plano Trabuco Road) at the north gate, one intersection (Coto de Caza Drive and Plano Trabuco Road) at the west gate, two intersections along Coto de Caza Drive, and two intersections where Via Pajaro intersects with Vista del Verde (west of the Project) and with Via Venado (east of the Project). The study intersections are all stop-controlled, either an all-way stop control (AWSC) or two-way stop control (TWSC) as follows:

- Coto de Caza Drive & Vista Del Verde (AWSC)
- Coto de Caza Drive & Trigo Trail (TWSC)
- Coto de Caza Drive & Plano Trabuco Road (TWSC)
- Via Pajaro & Plano Trabuco Road (TWSC)
- Via Pajaro & Via Venado (AWSC)
- Vista Del Verde & Via Pajaro (AWSC)

Coto de Caza Drive is a private road within the gated community of Coto de Caza and is configured with four vehicle lanes with a raised median and left-turn pockets at intersections.

2.2 EXISTING INTERSECTION VOLUMES

Existing peak hour turning movement volumes at the study intersections and 24-hour ADT at the key roadway segments were collected in May and December 2019. Illustrations of existing conditions for ADT and for peak hour turning movement volumes at each study area intersection can be found in Figure 2-1, Figure 2-2 and Figure 2-3 for the ADT, AM peak hour, and PM peak hours respectively. Copies of the traffic count data sheets are provided in Appendix A.

2.3 EXISTING INTERSECTION LEVELS OF SERVICE

A summary of the existing ICUs and the corresponding LOS of the study area intersections is provided in Table 2-1. The intersections are evaluated using the methodology described in the previous Chapter. The



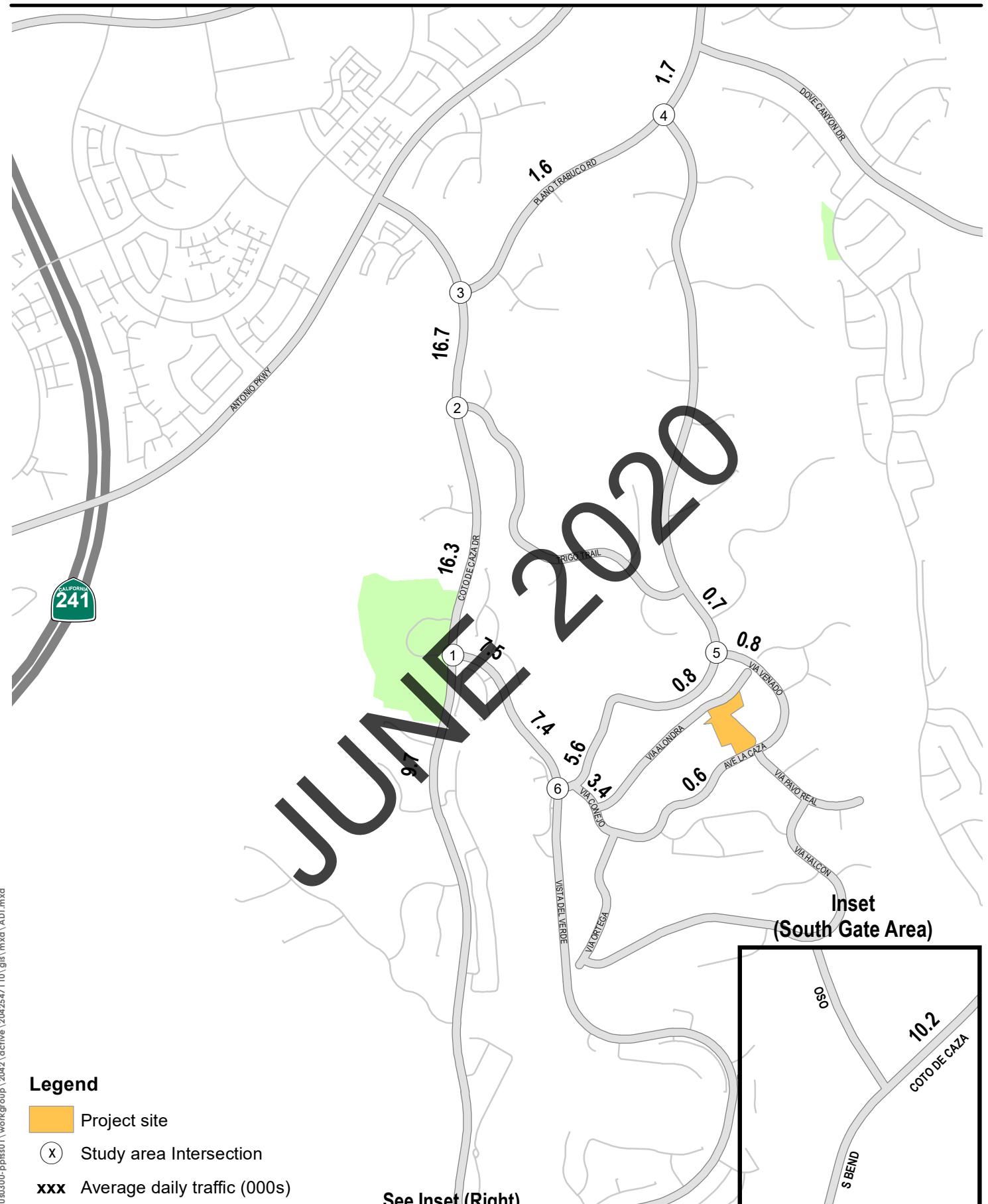


Figure 2.1

Existing Project - ADT (000s)

2.2

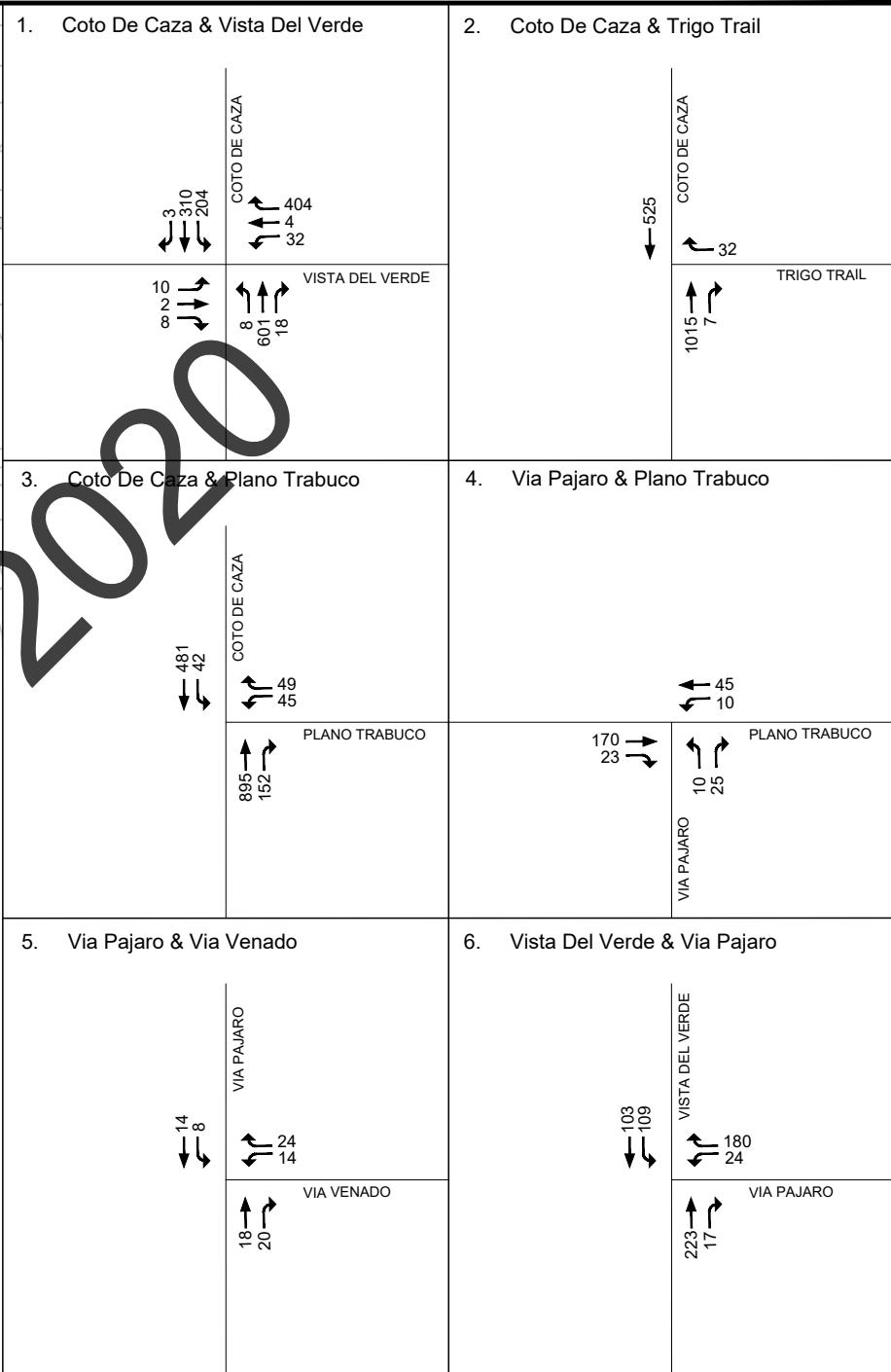
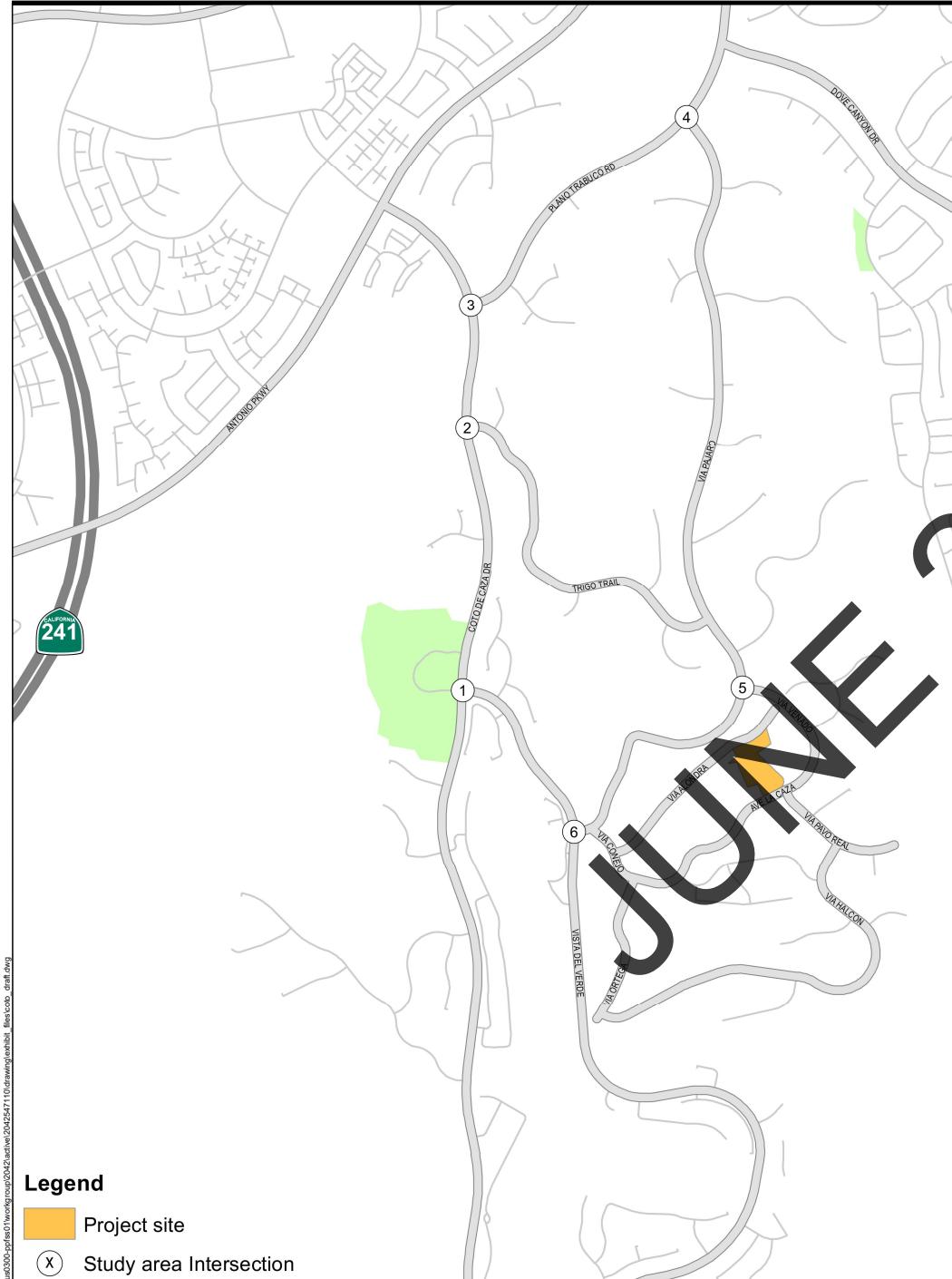


Figure 2-2

Existing Project - AM Peak Hour Volumes

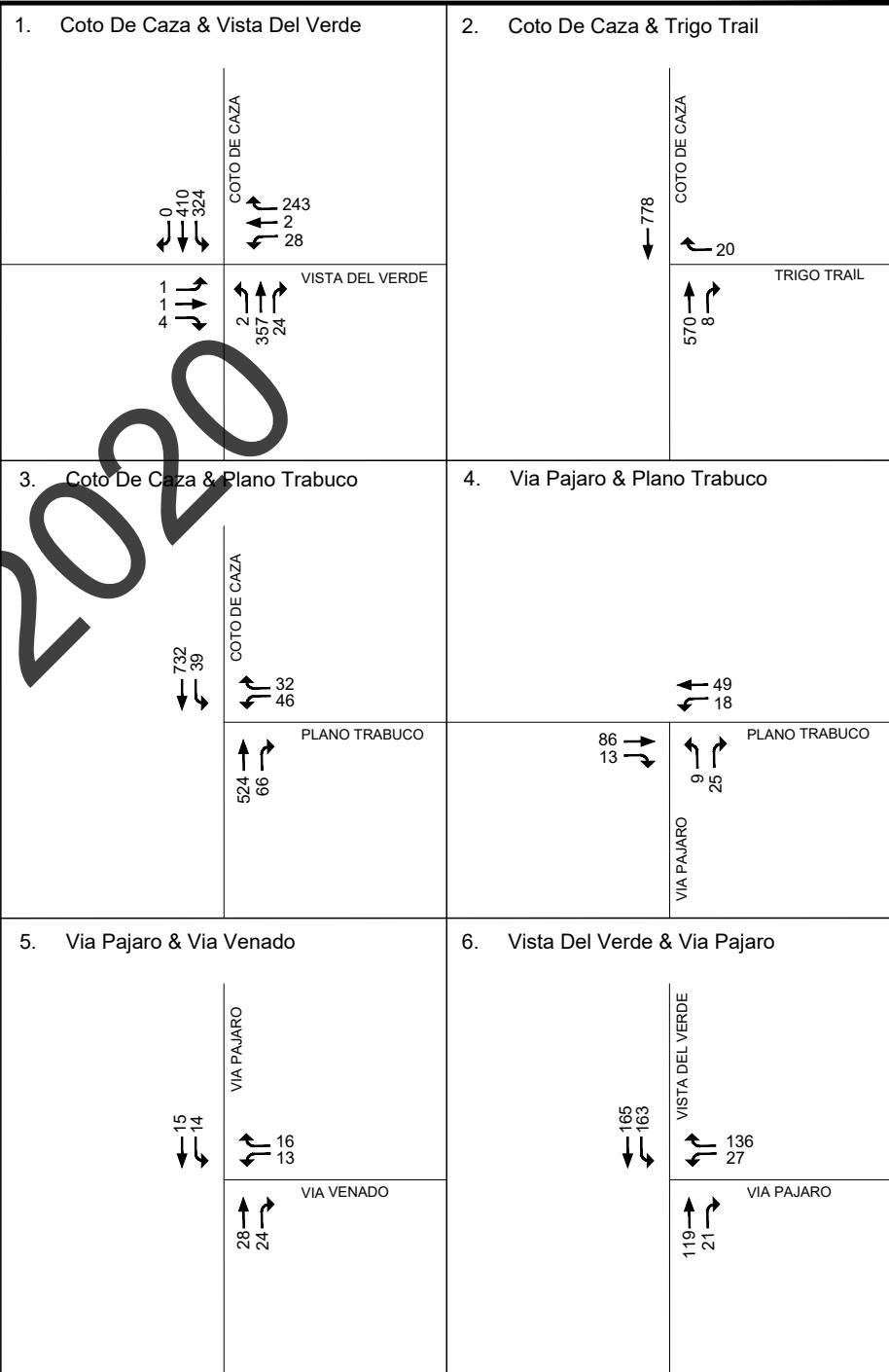
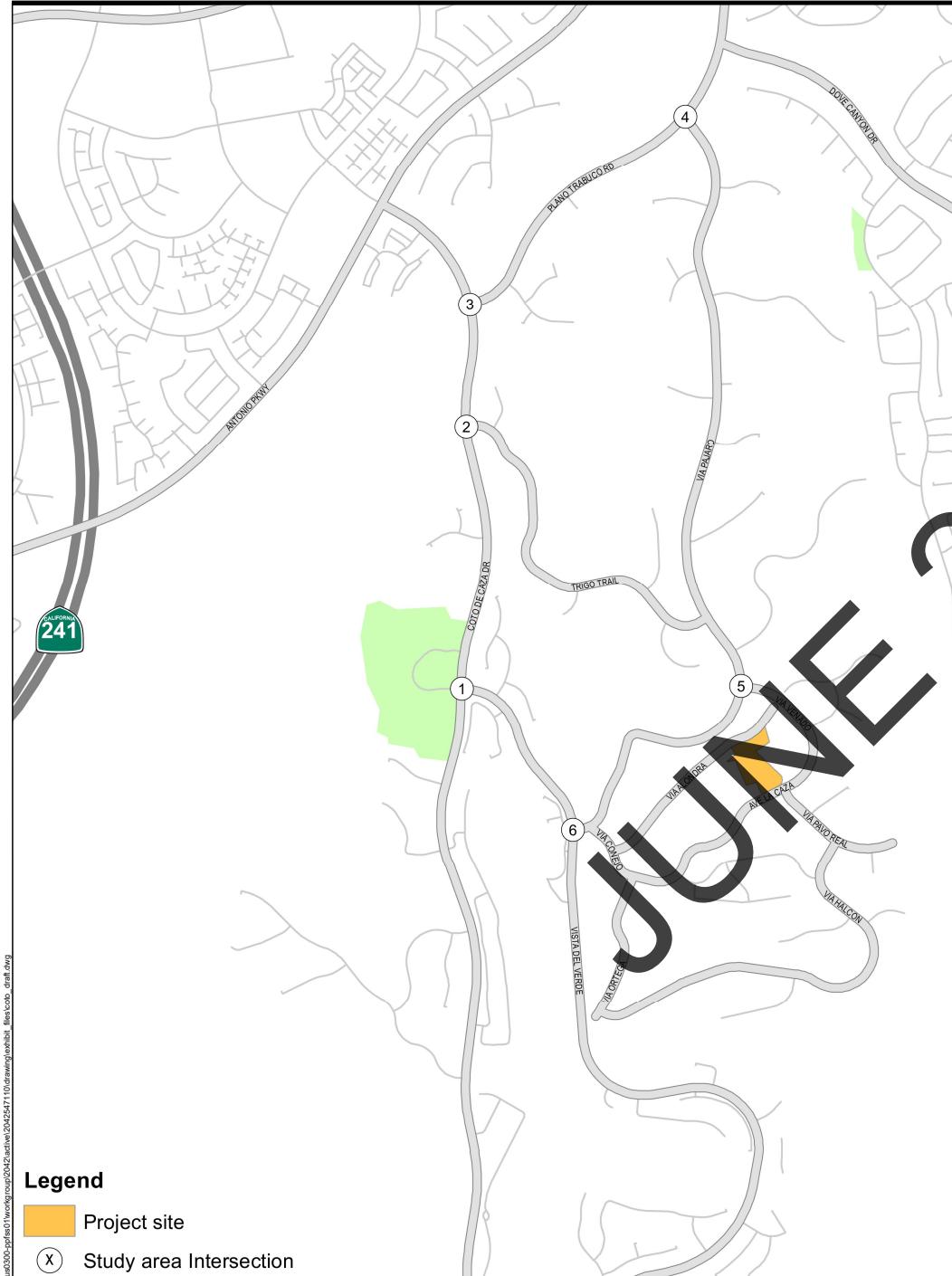


Figure 2-3

Existing Project - PM Peak Hour Volumes

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table shows that each intersection currently operates at LOS B or better. Detailed ICU calculation worksheets are provided in Appendix B.

Table 2-1 Intersection LOS Summary – Existing Conditions

Int No.	Intersection Location	Existing			
		AM		PM	
		ICU	LOS	ICU	LOS
1	Coto de Caza Dr & Vista Del Verde	0.62	B	0.51	A
2	Coto de Caza Dr & Trigo Trail	0.37	A	0.29	A
3	Coto de Caza Dr & Plano Trabuco Rd	0.41	A	0.30	A
4	Via Pajaro & Plano Trabuco Rd	0.19	A	0.14	A
5	Via Pajaro & Via Venado	0.09	A	0.11	A
6	Vista Del Verde & Via Pajaro	0.37	A	0.34	A

2.4 CUMULATIVE PROJECTS TRAFFIC VOLUMES

A list of projects was provided by the County that includes the approved, pending and/or proposed developments in the area. These projects are located in the City of Rancho Santa Margarita, Coto de Caza and other portions of unincorporated Orange County. Four projects in Coto de Caza as shown in Table 2-2 were determined to affect the study area based on their proximity to the proposed Project. A map showing the location of those four cumulative projects is provided in Figure 2-4.

Table 2-2 Cumulative Project Summary

Land Use	AM Peak Hour			PM Peak Hour			Traffic Study
	In	Out	Total	In	Out	Total	
1. Coto de Caza General Store Project							Yes
Retail 16,704 SF	36	22	58	48	47	95	
2. Coto de Caza Equestrian Center/Oak Grove Project							No
Single-Family 13 DU	2	8	10	8	6	14	
3. Via Terracalera Project							No
Single-Family 7 DU	1	4	5	4	3	7	
4. Lyon Subdivision							Yes
Single-Family 25 DU	5	14	19	16	9	25	
Sources:							
ITE Trip Generation Manual, 10th Edition, 2017							
Coto de Caza General Store Project Traffic Impact Study, 2015							
Lyon Subdivision Traffic Impact Study, 2016							





Legend

- Project site
- Study area Intersection
- Related project location

Figure 2-4

Cumulative Project Locations

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The first cumulative project included in the analysis is the 16,704 square feet Coto de Caza General Store Project, which is located at the corner of the intersection of Vista del Verde and Via Pajaro. The second cumulative project is the Coto de Caza Equestrian Center/Oak Grove project, a residential development of 13 single family dwelling units with five acres equestrian center, located in Planning Area 2 of Coto de Caza. The third cumulative project is the Via Terracalera project, a residential development of seven single family dwelling units located on Via Terracalera west of Coto de Caza Drive. The remaining cumulative project to be included in the analysis is the Lyons Subdivision project, a residential development of 25 single family dwelling units, located on the west side of Coto de Caza drive, south of the Via Terracalera project.

As mentioned above, Table 2-2 displays the location of the four cumulative projects in the study area, as well as their land use, project size, and the AM and PM peak hour trips generated by each project. These new trips generated by each of the cumulative projects were added to the existing conditions volumes to determine if the cumulative projects will impact traffic conditions.

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Project Description
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3.0 PROJECT DESCRIPTION

This chapter describes the traffic characteristics of the proposed Project. Trip generation for the Project is summarized and the distribution of Project trips on the study area circulation system is presented.

The proposed Project consists of approximately 101 residential units geared toward active seniors and would include resort-type amenities on-site such as a gourmet restaurant with room service, concierge service, movie theater, computer café, art studio, salon, spa, valet parking, and chauffeur service in the gated community of Coto de Caza. These amenities will not be available to outside residents. A specialty retail store type of use is also planned.

Primary access to the Project site will be via a driveway on Ave La Caza, with a proposed emergency access on Via Alondra. The Project site is a former Vic Braden Tennis Center. The proposed site plan is illustrated in Figure 3-1.

3.1 PROJECT TRIP GENERATION

Trip generation estimates for the Project are based on trip rates provided in the Institute of Transportation Engineers (ITE) Trip Generation Manual 10th Edition for Senior Adult Attached Housing category (251). Based on these standardized rates, as shown in Table 3-1, the Project would generate approximately 22 AM peak hour trips, 28 PM peak hour trips, and a total of 382 daily trips.

Table 3-1 Project Trip Generation Summary

Land Use	Amount	Unit	AM Peak Hour			PM Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Trip Rates									
Senior Adult Housing - Attached (252)		DU	0.07	0.13	0.20	0.14	0.12	0.26	3.70
Specialty Retail Center		TSF	0.72	0.48	1.20	1.80	1.80	3.60	40.00
Trip Generation									
Senior - Attached Housing ^{1,3}	101		7	13	20	14	12	26	374
Specialty Retail ²	0.188		1	1	2	1	1	2	8
Total			8	14	22	15	13	28	382
<u>Notes:</u>									
Specialty Retail Peak hour trips are rounded up									
ADT - Average Daily Traffic									
DU - Dwelling Units									
TSF - Thousand square feet									
<u>Trip Rate Sources:</u>									
¹ Senior Adult Housing - Attached: Institute of Transportation Engineers (ITE), 10th Edition, 2017, with ITE code in parentheses									
² Specialty Retail: SANDAG Traffic Generators, April 2002									
³ This traffic study was prepared based on an initial project description with higher number (110 DU) of Senior - Attached Housing dwelling units. Refinements to the dwelling unit total were subsequently made by the applicant and the trip generation analysis showed that the new unit total of 101 DU resulted in fewer trips than the initial project description. Therefore, this traffic study evaluates a conservative, worst-case scenario.									



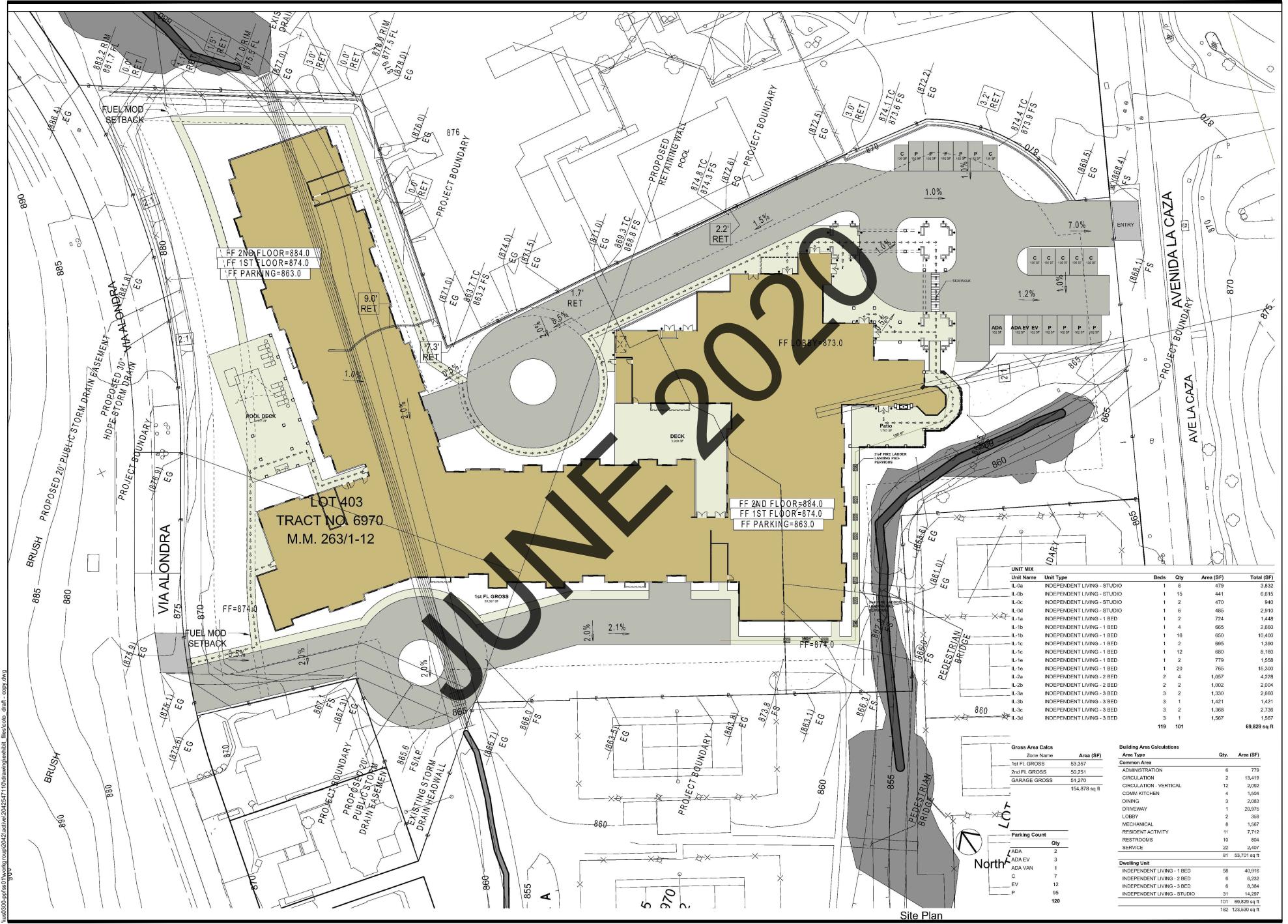


Figure 3-1

Proposed Site Plan

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Project Description
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3.2 PROJECT TRIP DISTRIBUTION

The trips generated by the Project will use Coto de Caza Drive and Via Pajaro to access the surrounding circulation system. Based on the site's location in relation to the various Coto de Caza entry gates, it is estimated that the majority of the Project trips, approximately 85 percent would use the entrance to Coto de Caza at the Antonio Parkway, the west gate into the community.

As shown in Figure 3-2, approximately 95 percent of the Project trips would travel west along Avenida La Caza/Via Conejo/Via Pajaro/Vista Del Verde, with 85 percent continuing north on Coto de Caza Drive to the west gate and 10 percent continuing south on to Coto de Caza Drive to the south gate, and 5 percent of the Project trips would travel east along Avenida La Caza/Via Venado/Via Pajaro to the north gate. Figure 3-3 illustrates the total Project trips for ADT. AM and PM peak hour Project generated trips are illustrated in the Figure 3-4 and Figure 3-5, respectively based on the Project's anticipated trip distribution.

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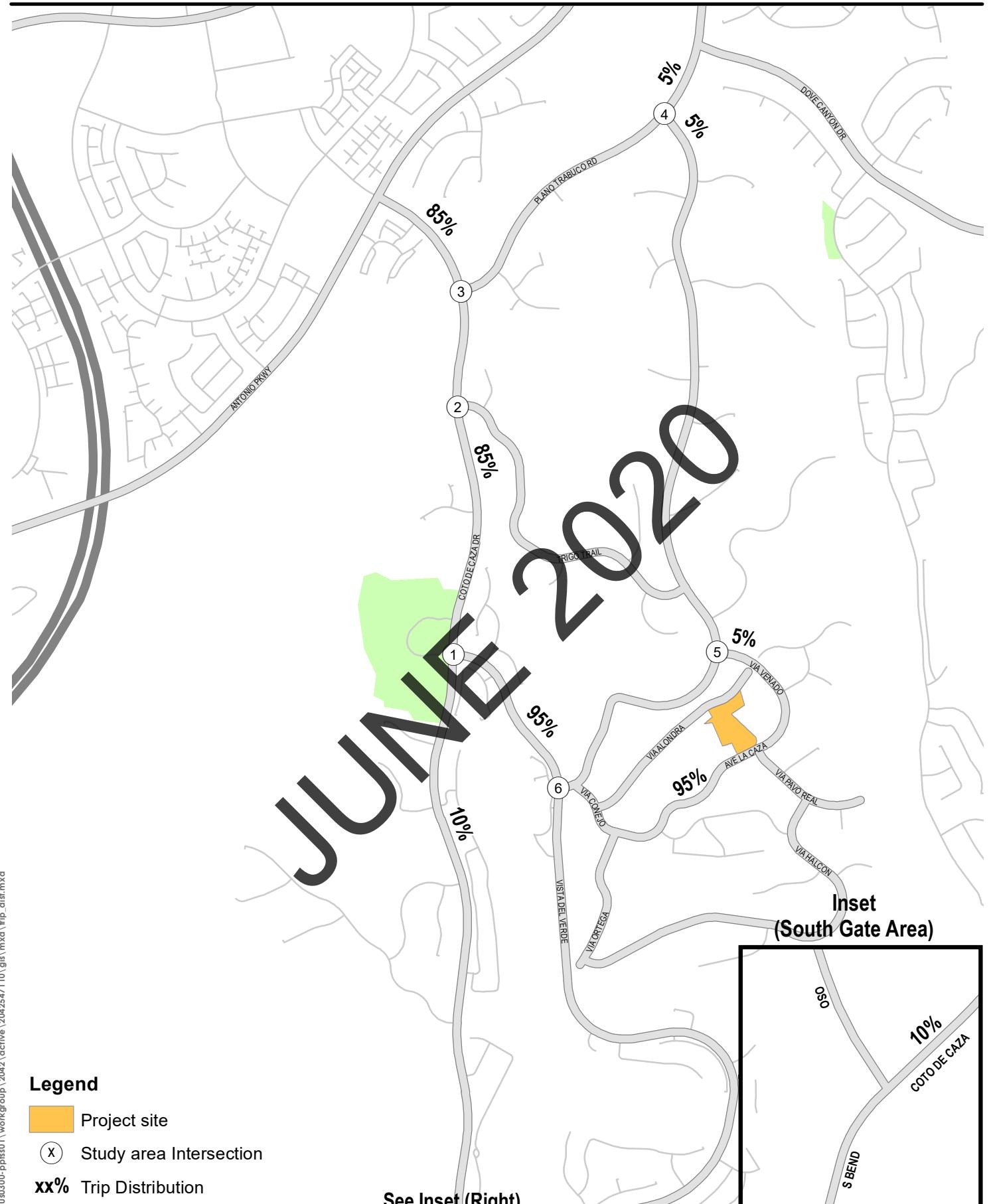


Figure 3-2

Project Trip Distribution

3.4

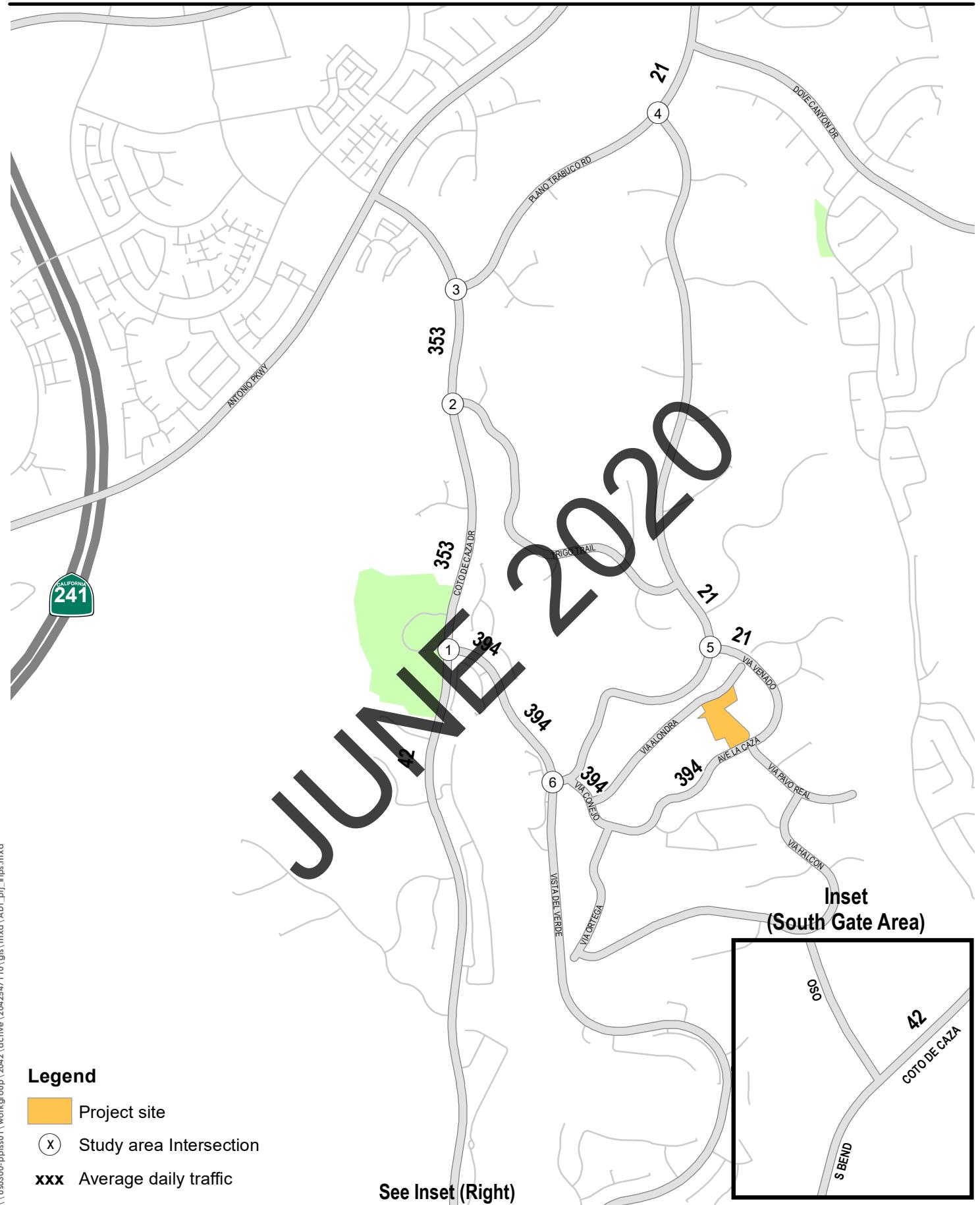


Figure 3-3

Project Trips - ADT

3.5

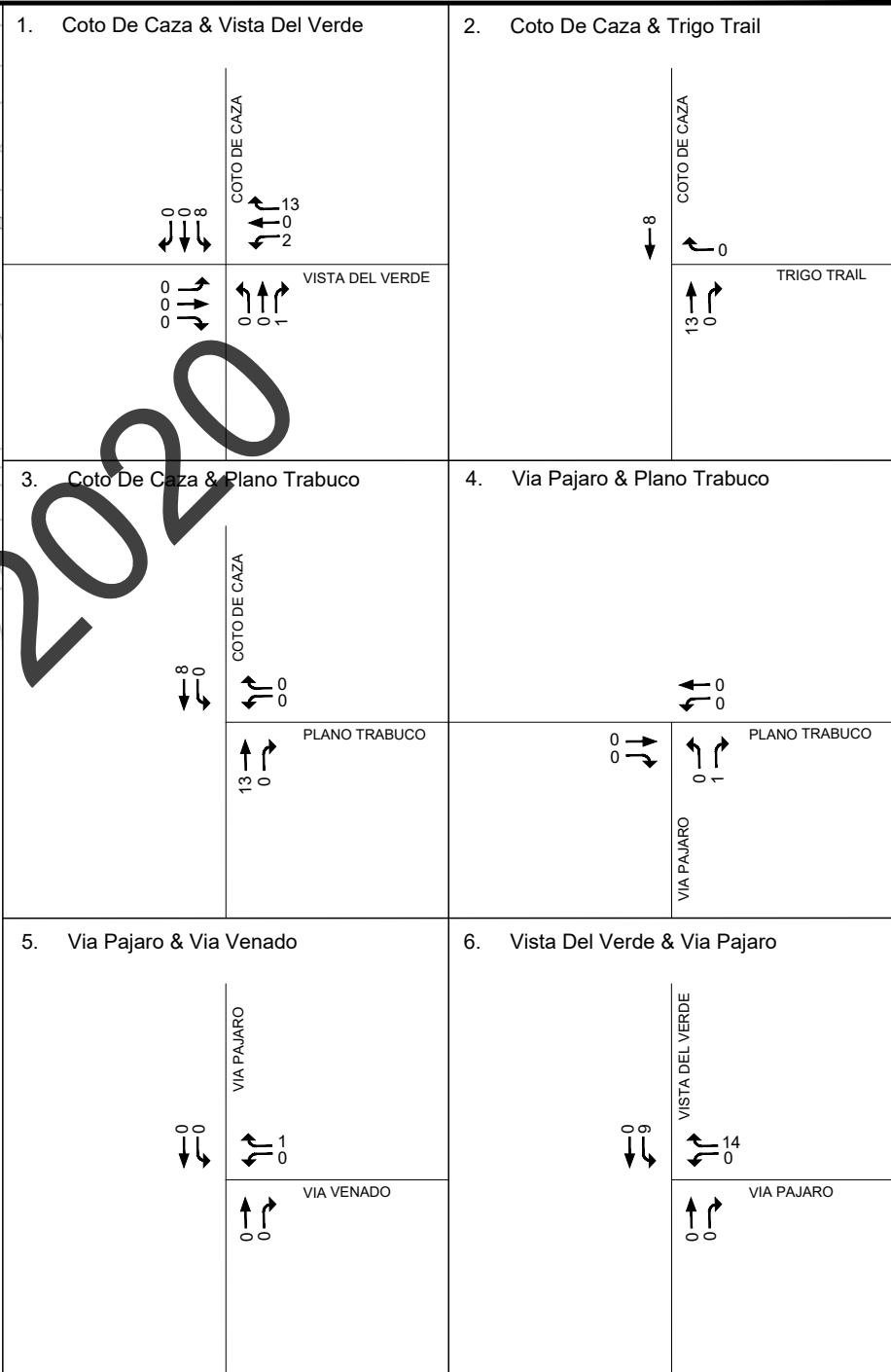
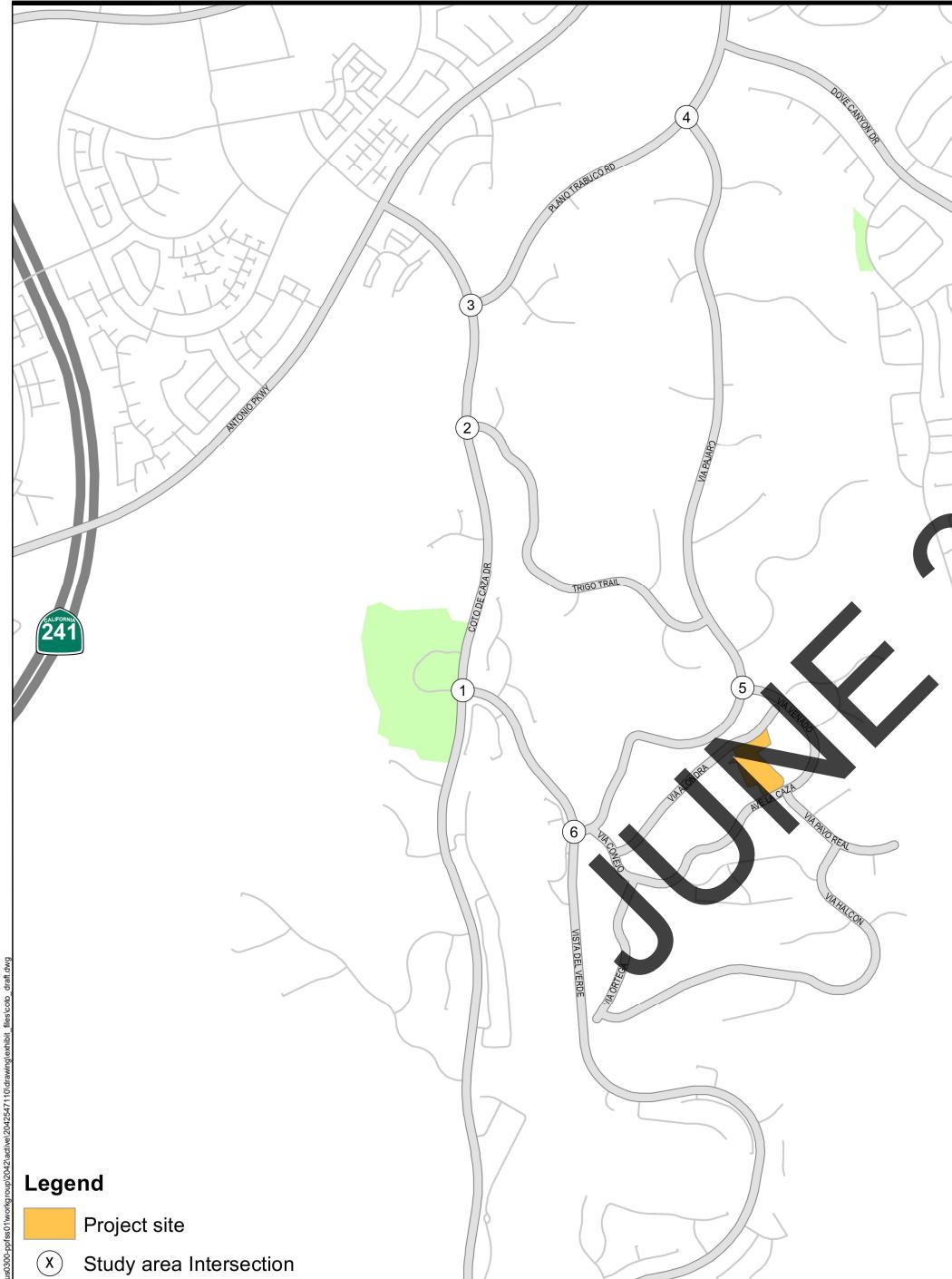


Figure 3-4

Project Trips - AM Peak Hour

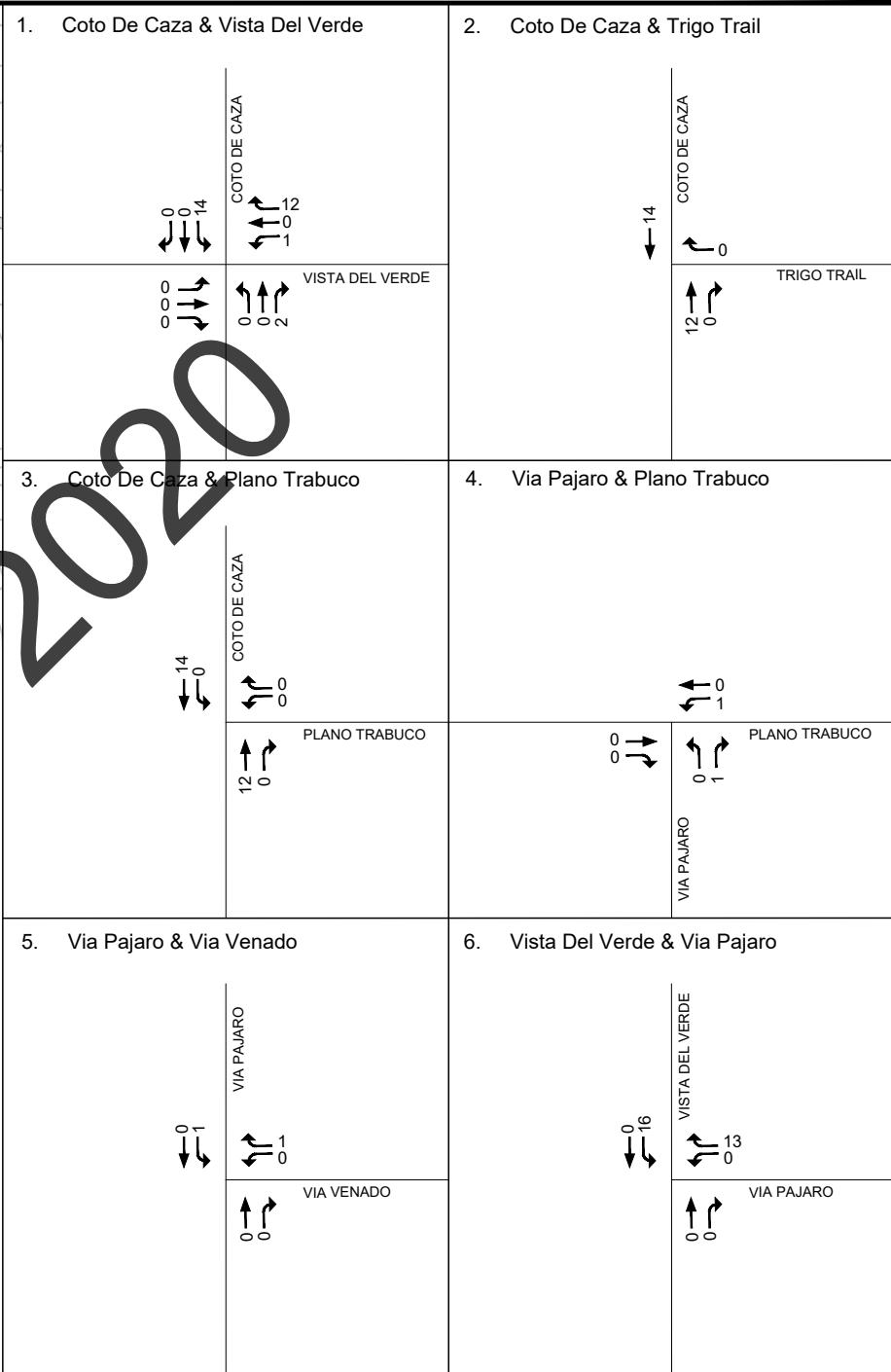
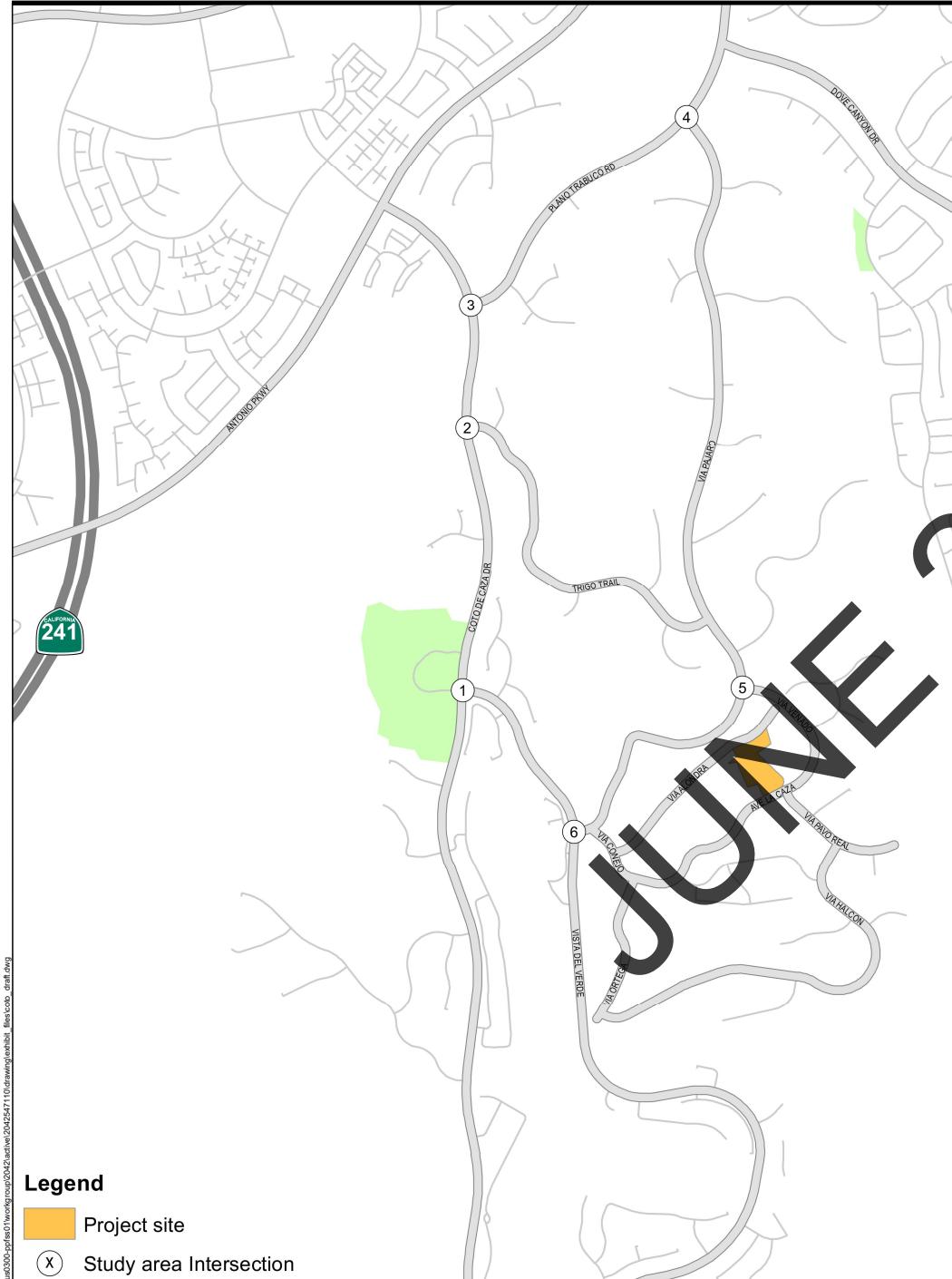


Figure 3-5

Project Trips - PM Peak Hour

3.7

LEGACY AT COTO TRAFFIC STUDY

Traffic Impact Analysis
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4.0 TRAFFIC IMPACT ANALYSIS

This chapter addresses the traffic impacts of the Project. Existing conditions with the addition of Project traffic are first summarized, followed by the cumulative setting. The following sections summarize the results of the analysis of the study area. Project increases resulting in significant impacts, if any, are discussed and mitigation measures are identified if necessary.

4.1 EXISTING CONDITIONS - WITH PROJECT

Existing-plus-Project peak hour volumes were derived by adding the Project generated peak hour trips presented in the Section 2.0 to the existing intersection turning movement volumes for each of the study intersections. The ADT volumes for existing-plus-Project conditions for the study area circulation system are illustrated in Figure 4-1. Illustrations of peak hour turning movement volumes can be found in Figure 4-2 for the AM peak hour and Figure 4-3 for the PM peak hour.

Peak hour ICU and LOS that correspond with the existing traffic and existing-plus-Project traffic forecasts can be found in Table 4-1, which provides a comparison between the no-Project and the with-Project conditions. The evaluation of study intersections based on the existing lane configurations is prepared using ICU methodology. The ICU calculation worksheets are included in Appendix B.

Table 4-1 Intersection LOS Summary – Existing Plus Project Conditions

Int No.	Intersection Location	Existing				Existing plus Project				Difference	
		AM		PM		AM		PM			
		ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
1	Coto de Caza Dr & Vista Del Verde	0.62	B	0.51	A	0.63	B	0.53	A	0.01	0.02
2	Coto de Caza Dr & Trigo Trail	0.37	A	0.29	A	0.37	A	0.29	A	0.00	0.00
3	Coto de Caza Dr & Plano Trabuco Rd	0.41	A	0.30	A	0.41	A	0.30	A	0.00	0.00
4	Via Pajaro & Plano Trabuco Rd	0.19	A	0.14	A	0.19	A	0.14	A	0.00	0.00
5	Via Pajaro & Via Venado	0.09	A	0.11	A	0.09	A	0.11	A	0.00	0.00
6	Vista Del Verde & Via Pajaro	0.37	A	0.34	A	0.39	A	0.35	A	0.02	0.01

The County of Orange has adopted LOS D as the maximum threshold for significance. A significant impact is defined as an increase of 0.01 or more in the ICU value for intersections operating at LOS D or worse.

The Project doesn't change the ICU value for four of the study intersections but increases the ICU value by 0.01 or 0.02 for two study intersections. However, each of these intersections continue to operate at LOS A or B during the peak hours; therefore, the Project would have no significant impact on the study intersections based on the ICU analysis.



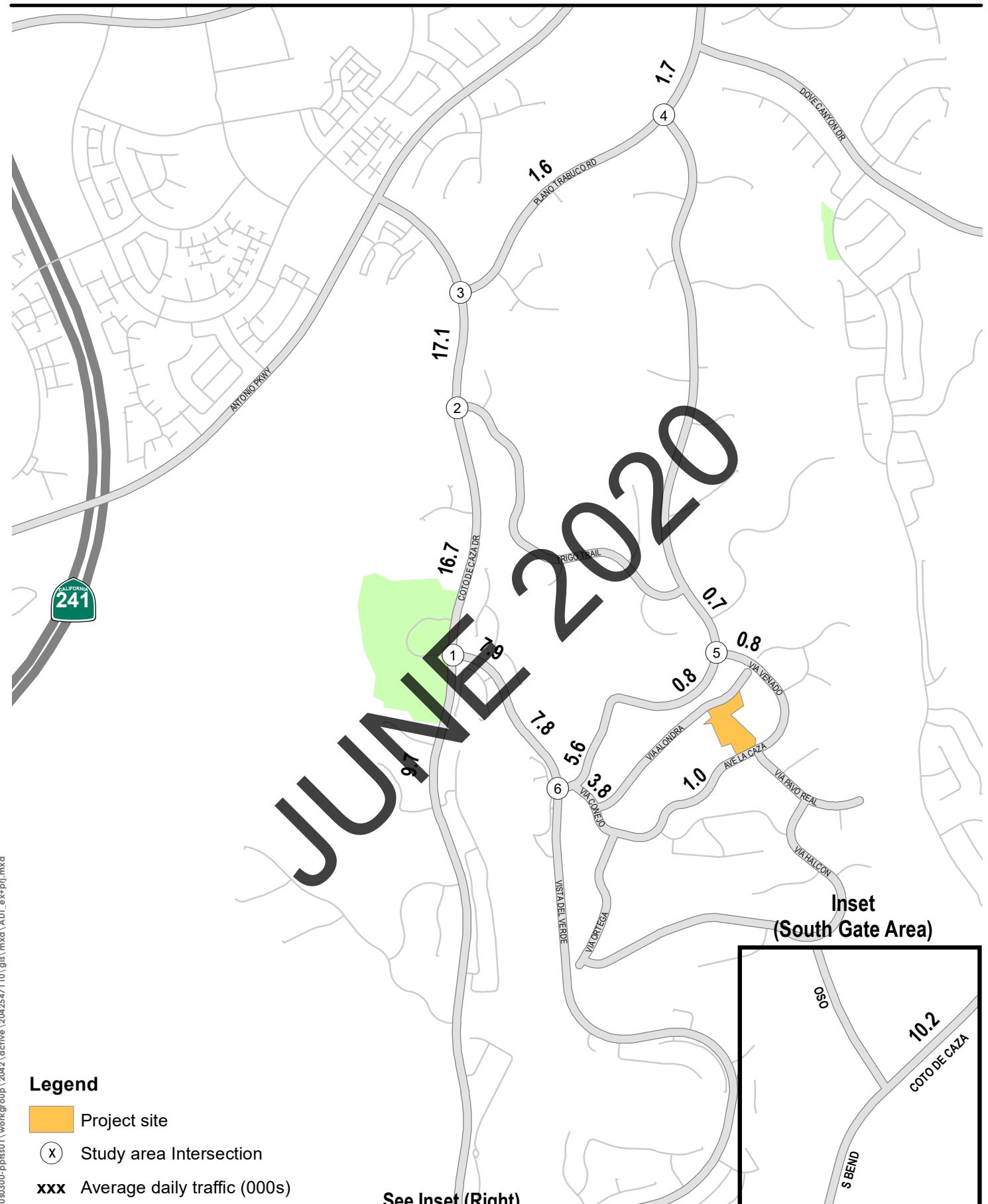


Figure 4-1

Existing Plus Project - ADT (000s)

4.2

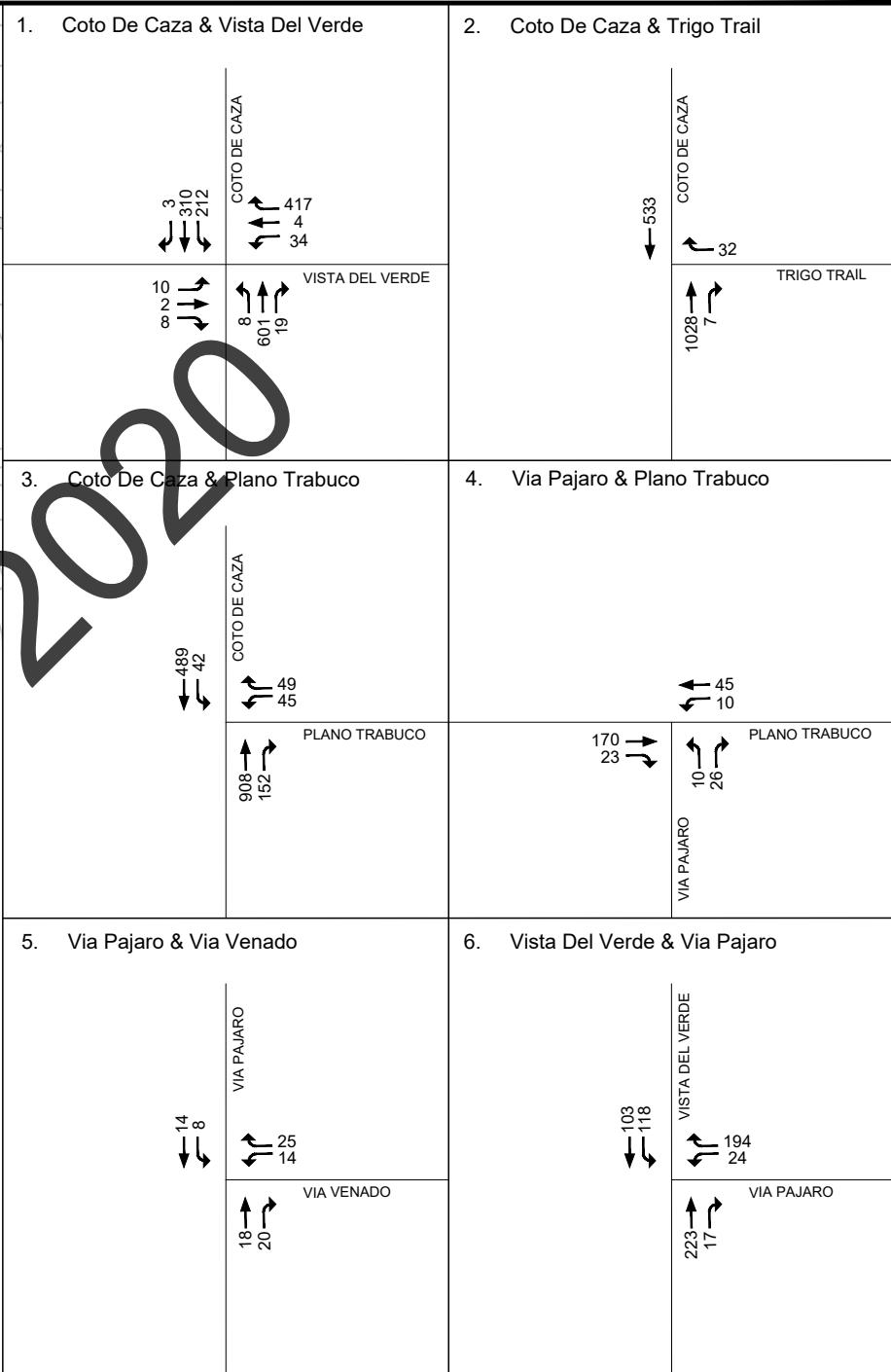
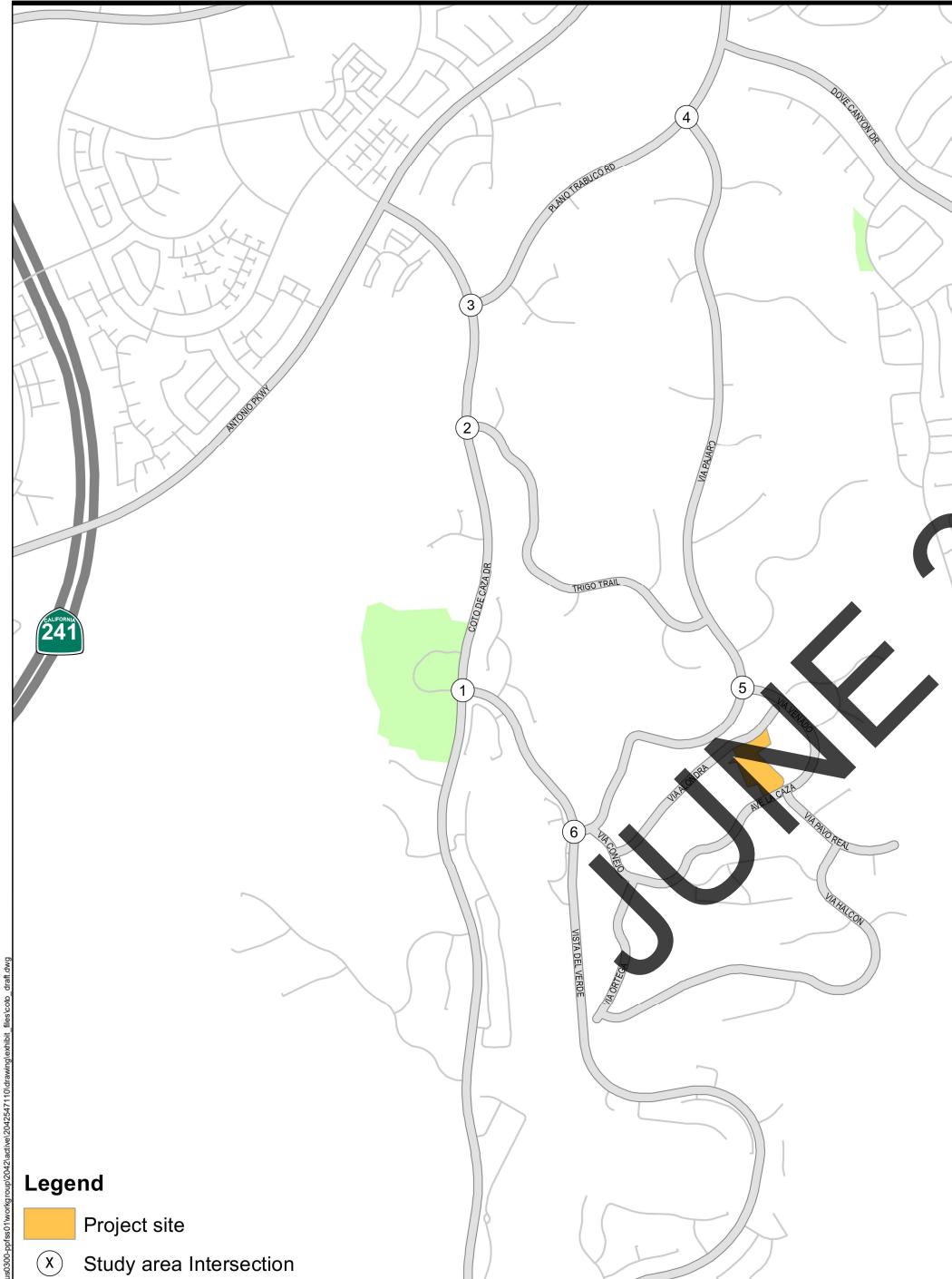


Figure 4-2

Existing Plus Project - AM Peak Hour Volumes

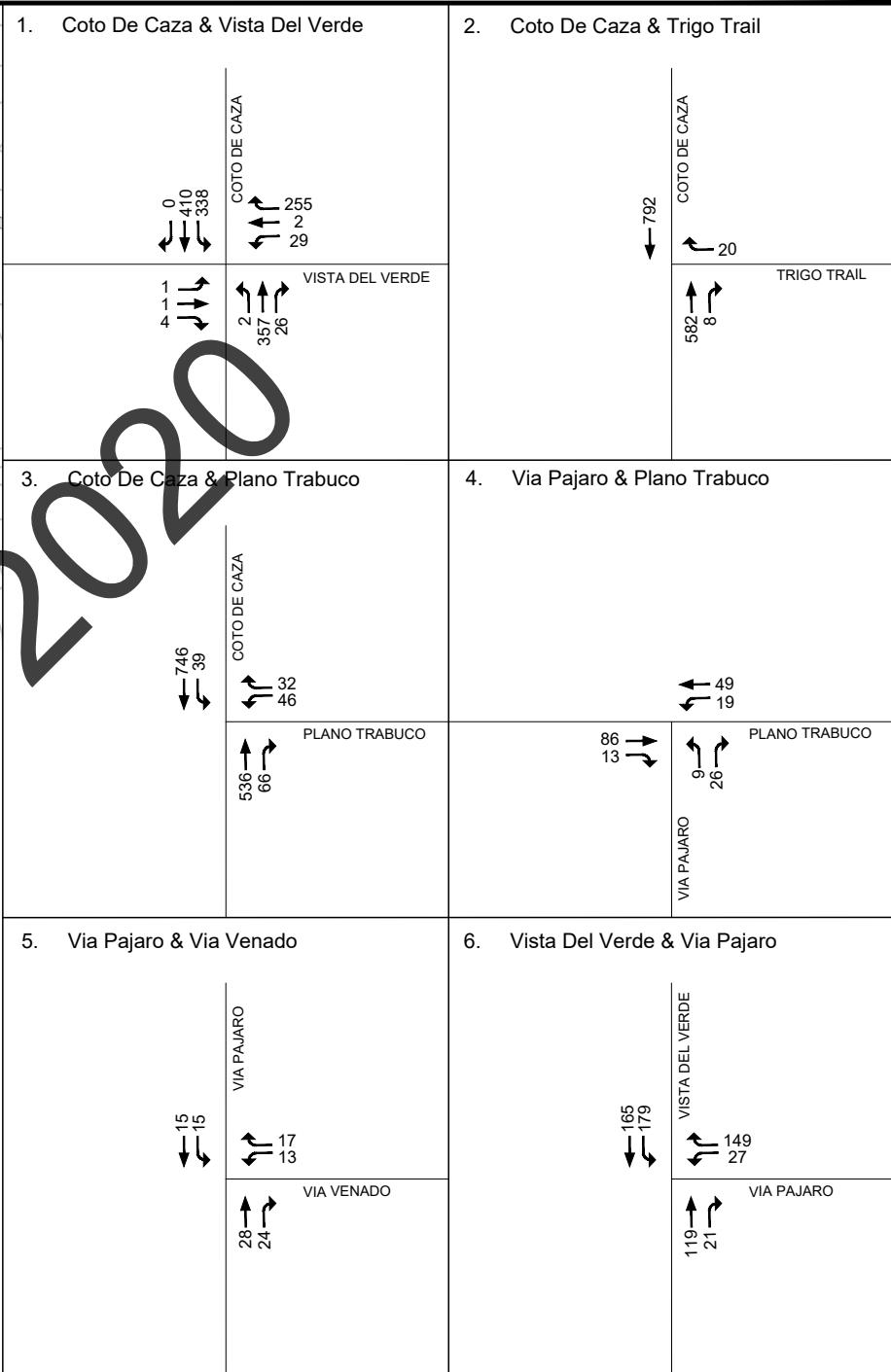
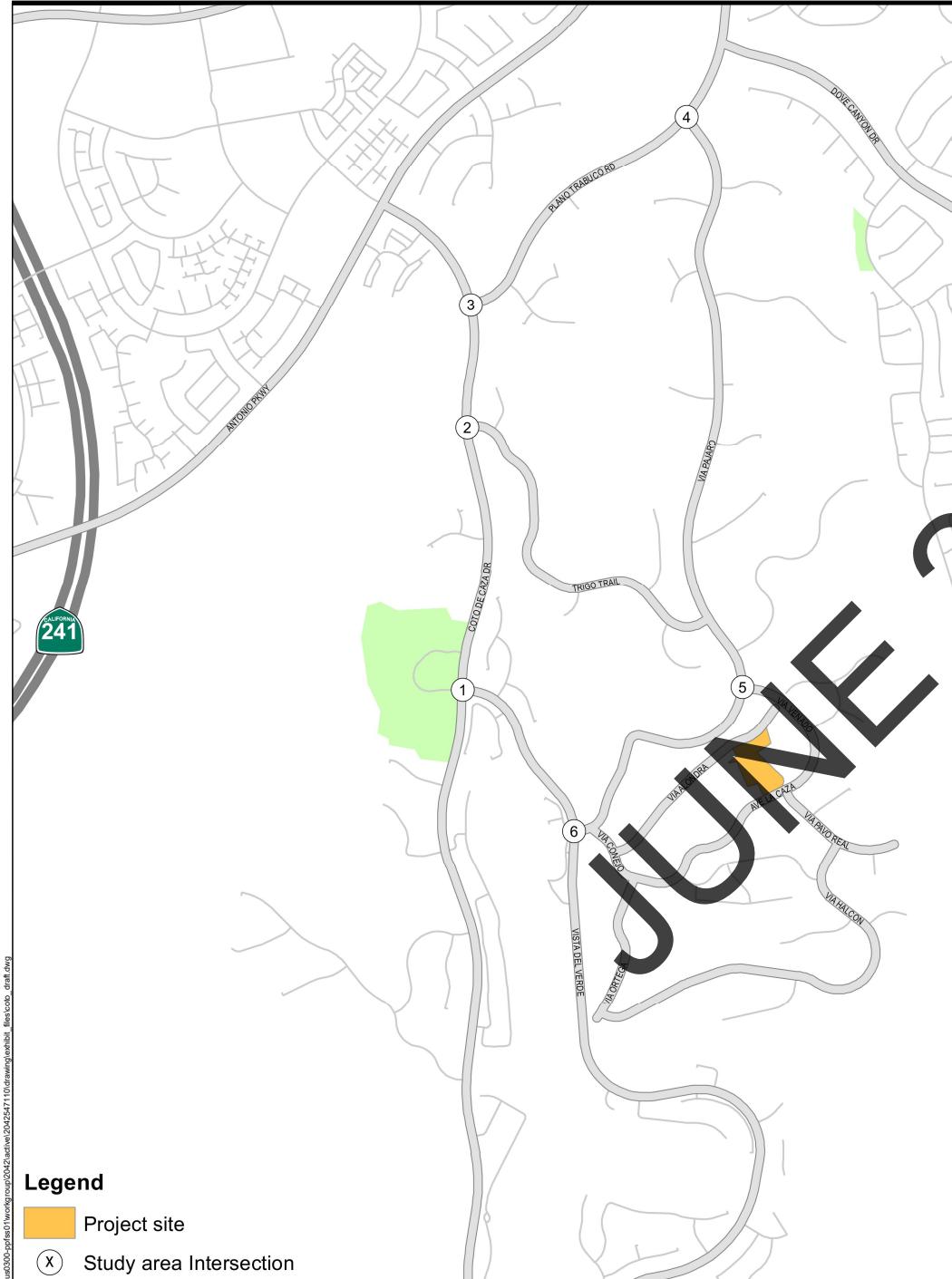


Figure 4-3

Existing Plus Project - PM Peak Hour Volumes

LEGACY AT COTO TRAFFIC STUDY

Traffic Impact Analysis
April 2020

4.2 CUMULATIVE CONDITIONS ANALYSIS

The purpose of the cumulative conditions impact analysis is to evaluate the Project's impacts in the context of other approved, planned or anticipated projects. The intent of the analysis is to determine the combined impact of Project and related project traffic. This is in contrast to the direct impact of the Project traffic only, which was evaluated in Section 4.1.

As described in Section 2.4, four cumulative projects were determined to affect the study area. The new trips generated by each of these cumulative projects were added to the existing conditions volumes, to determine if the cumulative projects will add to traffic congestion and create an impact.

The ADT volumes for cumulative conditions without Project are illustrated in Figure 4-4. Peak hour turning movement volumes for cumulative without Project conditions for the intersections in the study area are illustrated in Figure 4-5 for the AM peak hour and in Figure 4-6 for the PM peak hour. The ADT volumes for cumulative conditions with Project are illustrated in Figure 4-7. Peak hour turning movement volumes for cumulative with Project conditions for the intersections in the study area are illustrated in Figure 4-8 for the AM peak hour and in Figure 4-9 for the PM peak hour.

Peak hour ICU and the corresponding LOS can be found in Table 4-2, which provides a comparison between cumulative conditions without and with the proposed Project based on existing lane configurations. As shown in the table, the Project doesn't change the ICU value for three of the study intersections but increases the ICU value by 0.01 or 0.02 at the remaining three study intersections. However, each of these intersections would continue to operate at LOS A or B during the peak hours; therefore, the Project would have no significant impact on the study intersections based on the ICU analysis.

Even with the cumulative volumes added from other projects in the area of Coto de Caza, the Project has no significant impact on the study intersections under cumulative conditions, and no mitigation is required.

Table 4-2 Intersection LOS Summary – Cumulative Conditions

Int No.	Intersection Location	Cumulative Conditions No-Project				Cumulative Conditions with-Project				Difference	
		AM		PM		AM		PM			
		ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
1	Coto de Caza Dr & Vista Del Verde	0.65	B	0.55	A	0.66	B	0.57	A	0.01	0.02
2	Coto de Caza Dr & Trigo Trail	0.38	A	0.30	A	0.38	A	0.30	A	0.00	0.00
3	Coto de Caza Dr & Plano Trabuco Rd	0.41	A	0.30	A	0.42	A	0.31	A	0.01	0.01
4	Via Pajaro & Plano Trabuco Rd	0.19	A	0.14	A	0.19	A	0.14	A	0.00	0.00
5	Via Pajaro & Via Venado	0.09	A	0.11	A	0.09	A	0.11	A	0.00	0.00
6	Vista Del Verde & Via Pajaro	0.37	A	0.34	A	0.39	A	0.35	A	0.02	0.01

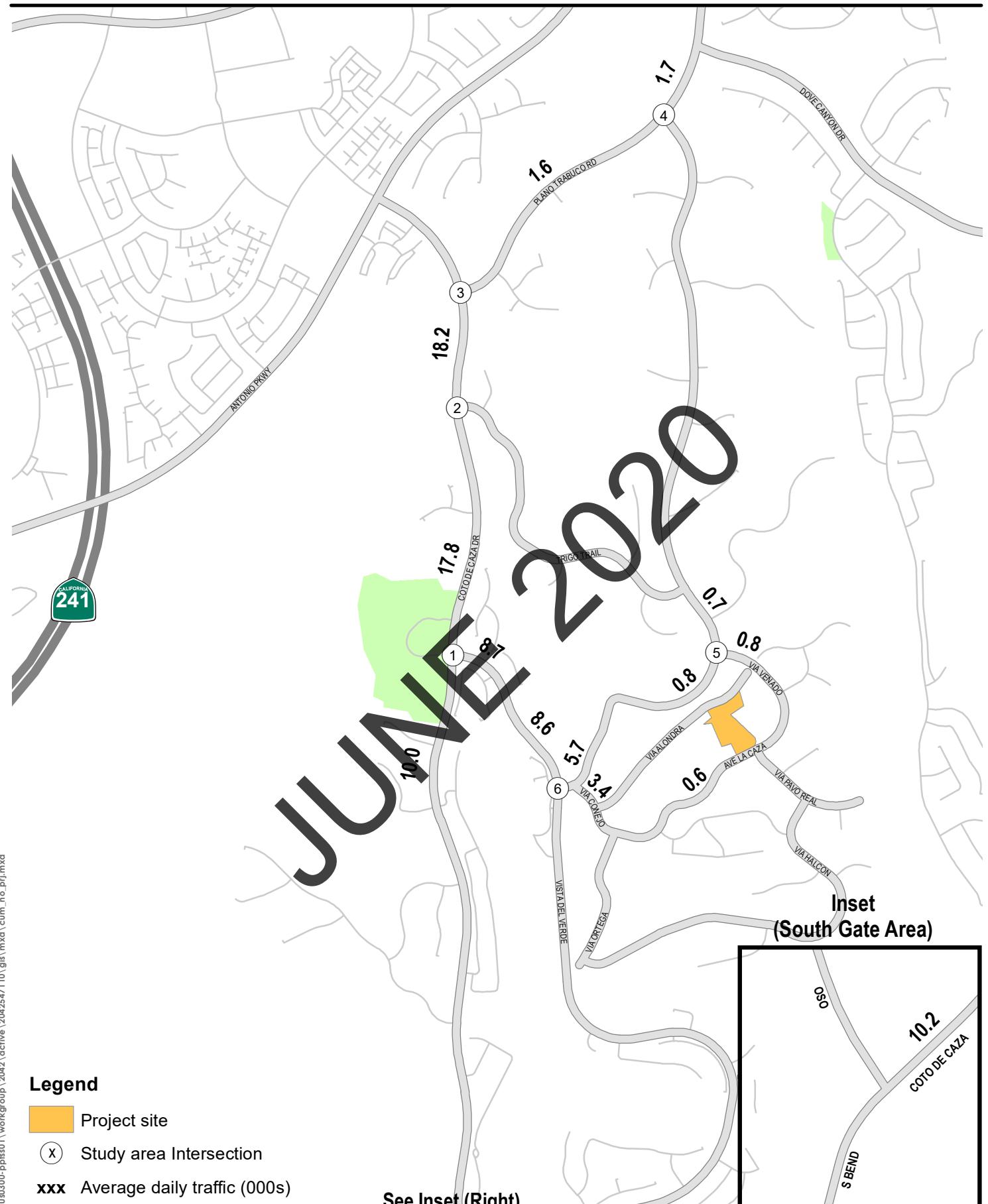


Figure 4.4

Cumulative without Project - ADT (000s)

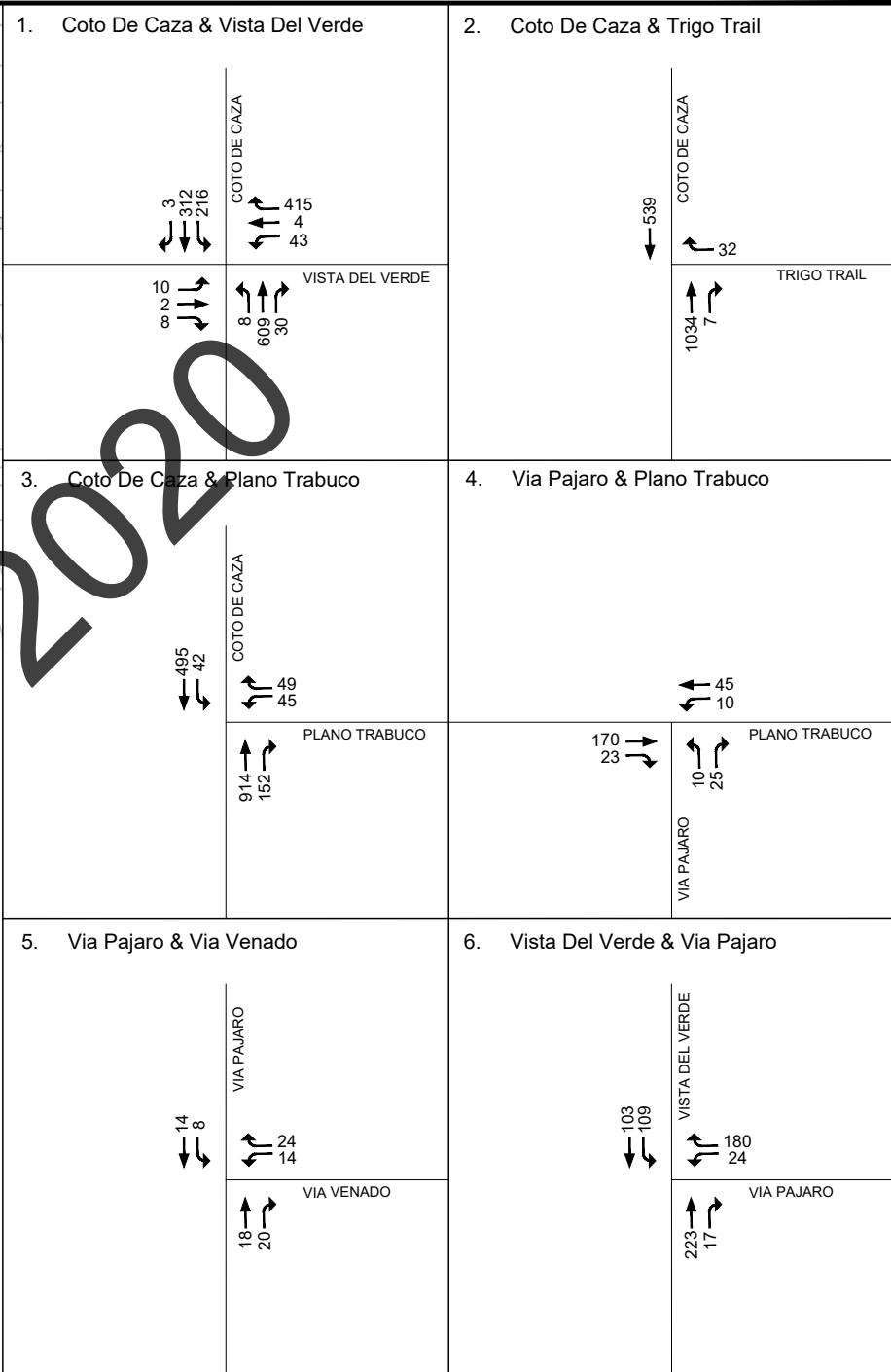
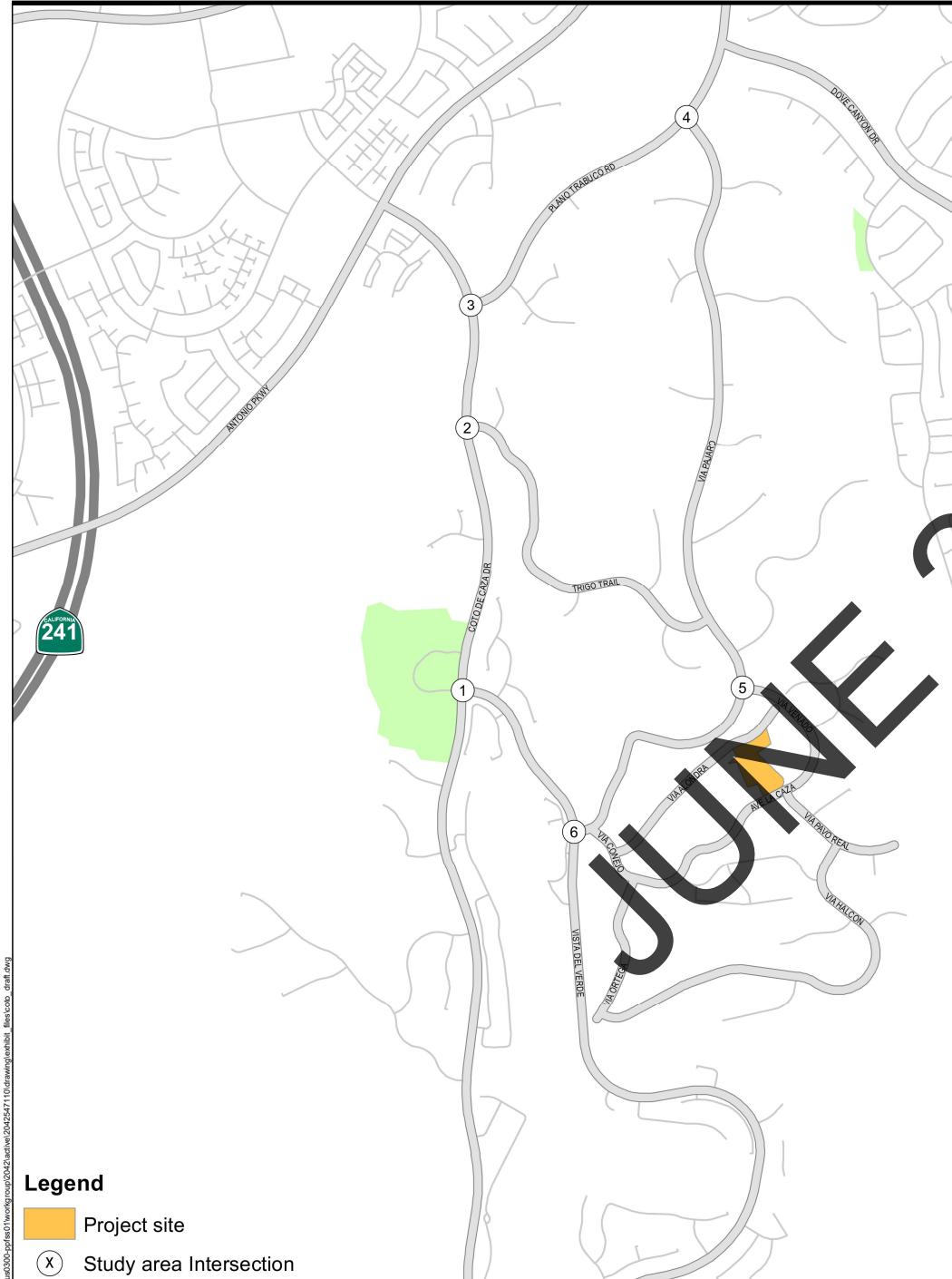


Figure 4-5

Cumulative Without Project - AM Peak Hour Volumes

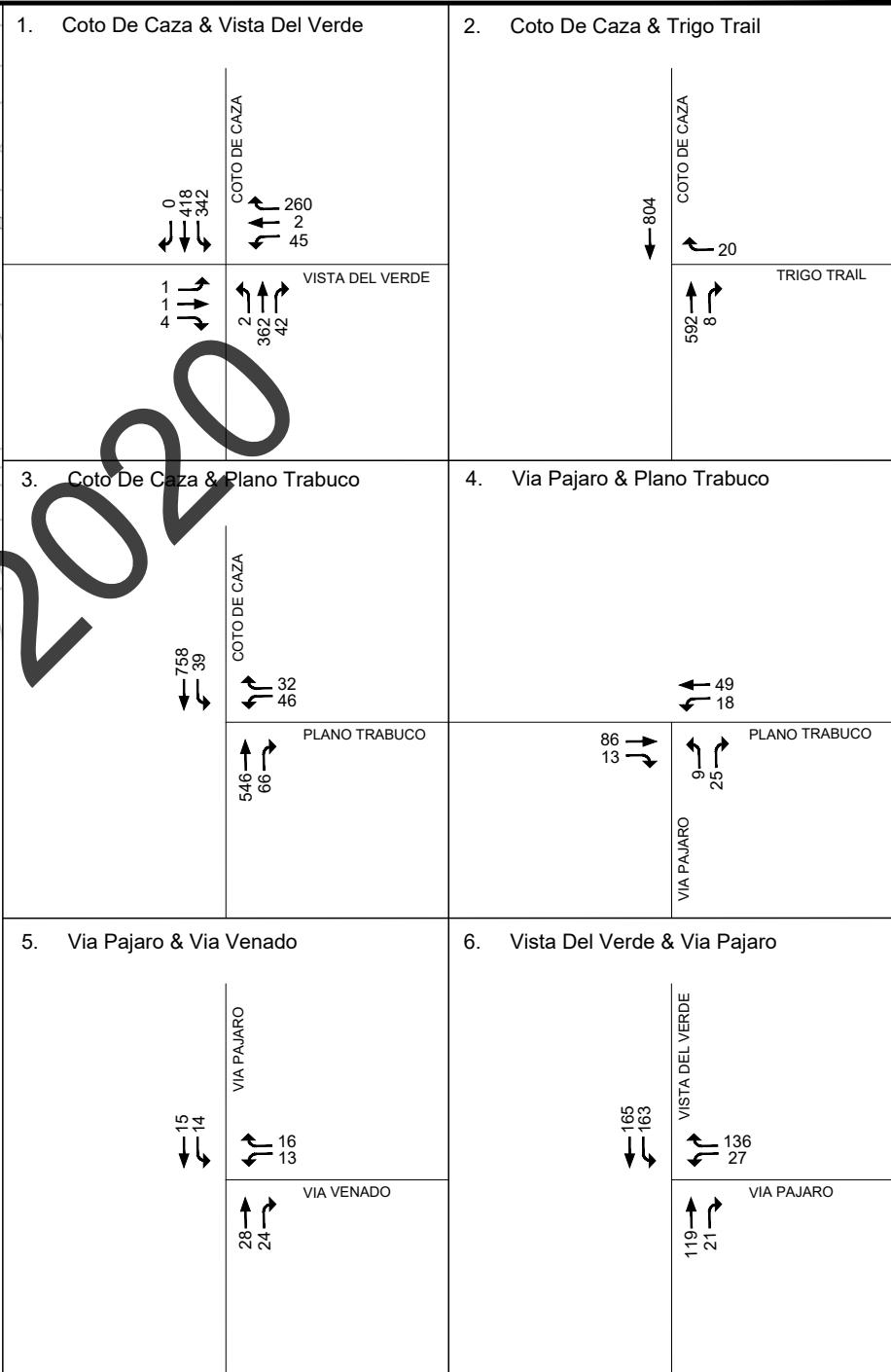
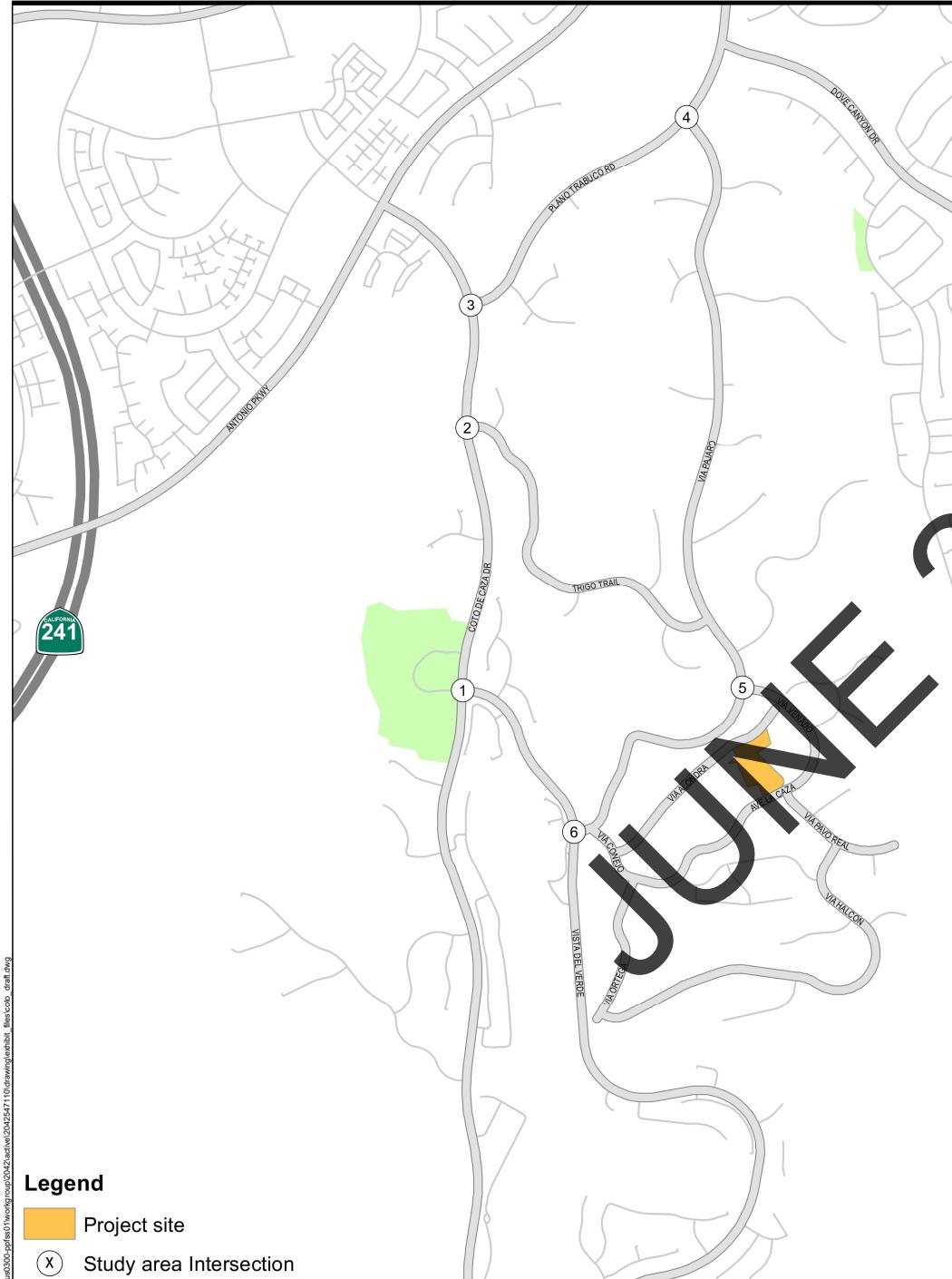


Figure 4-6
Cumulative Without Project - PM Peak Hour Volumes

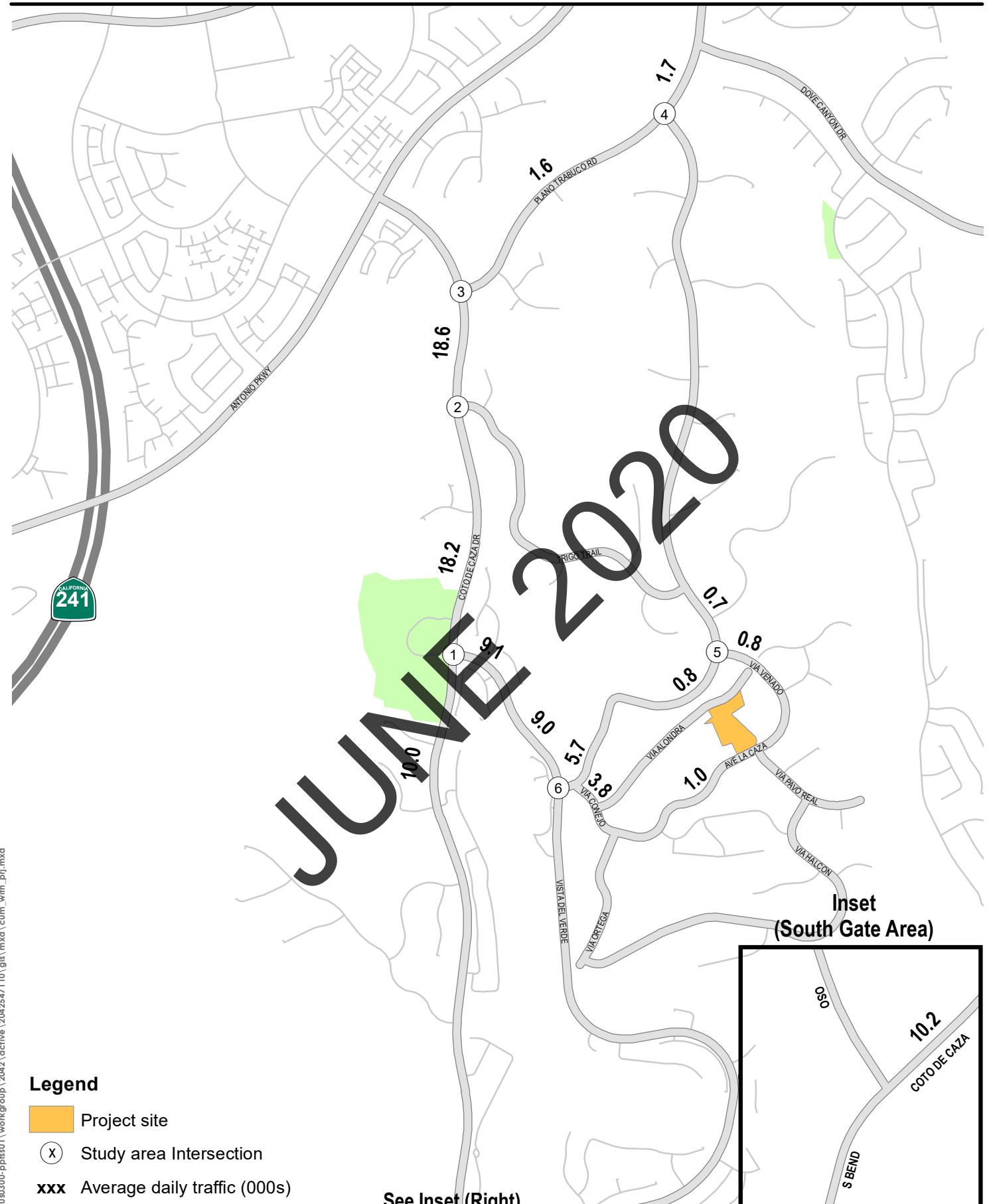


Figure 4-7

Cumulative with Project - ADT (000s)

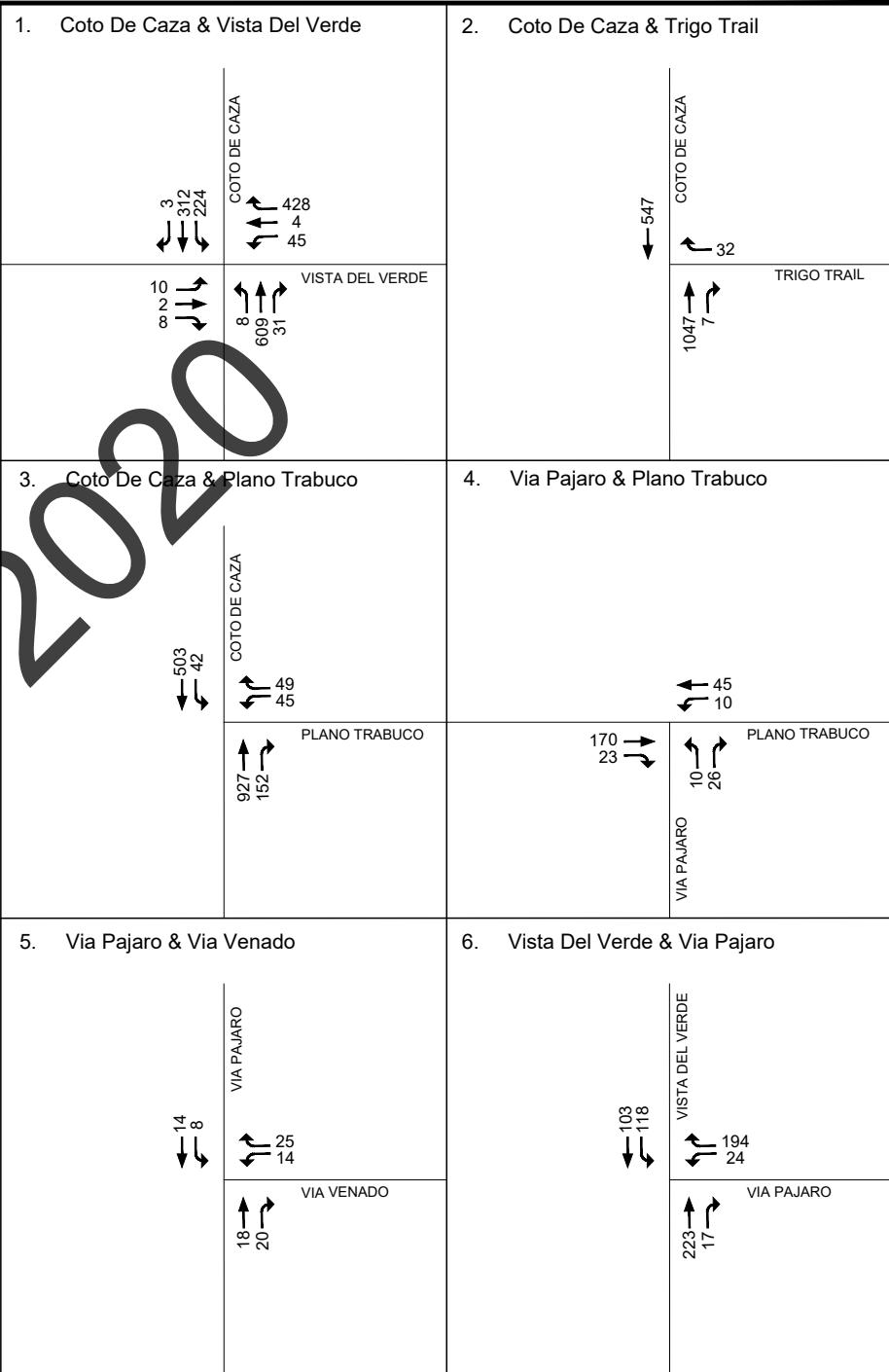
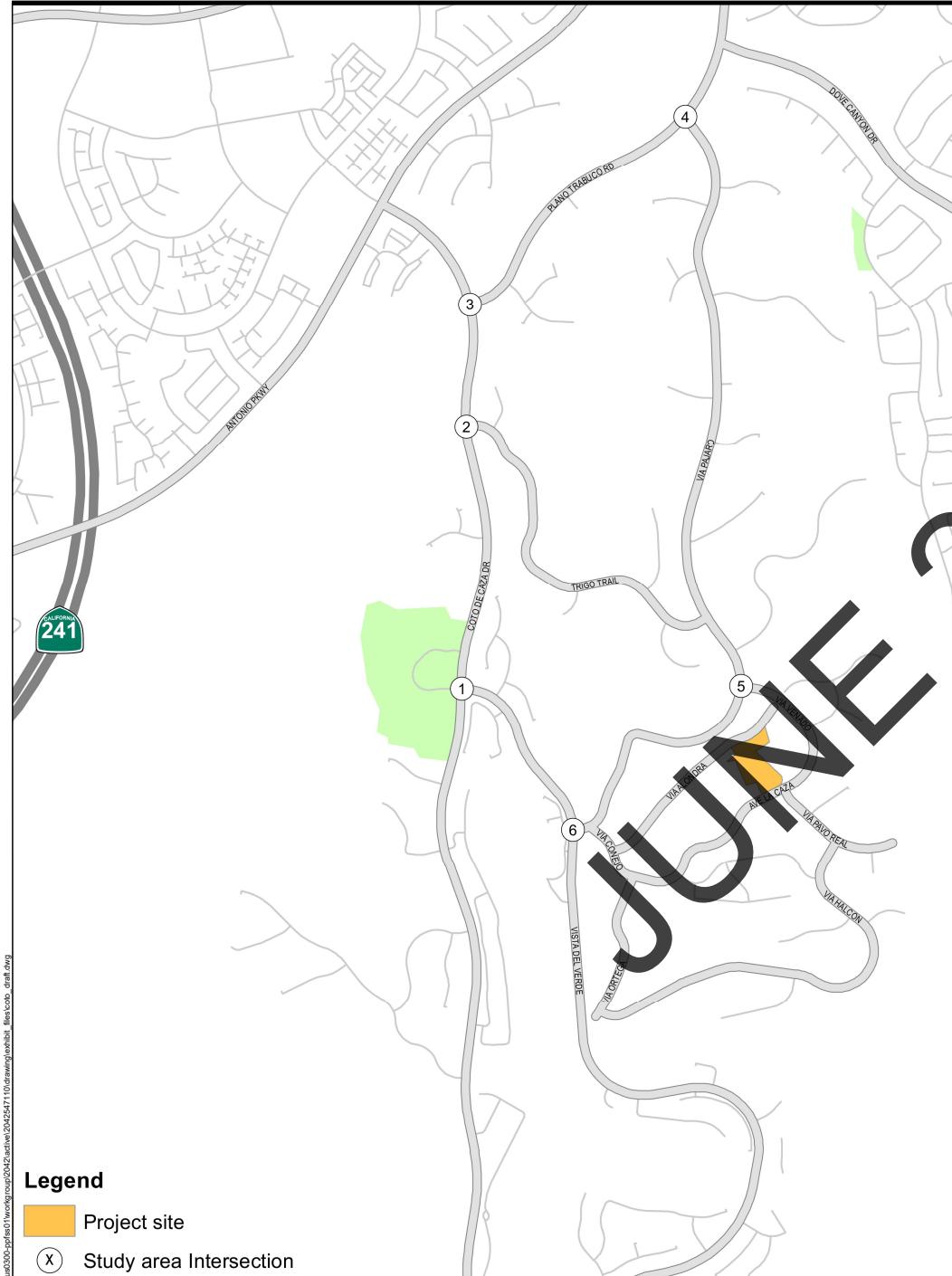


Figure 4-8

Cumulative With Project - AM Peak Hour Volumes

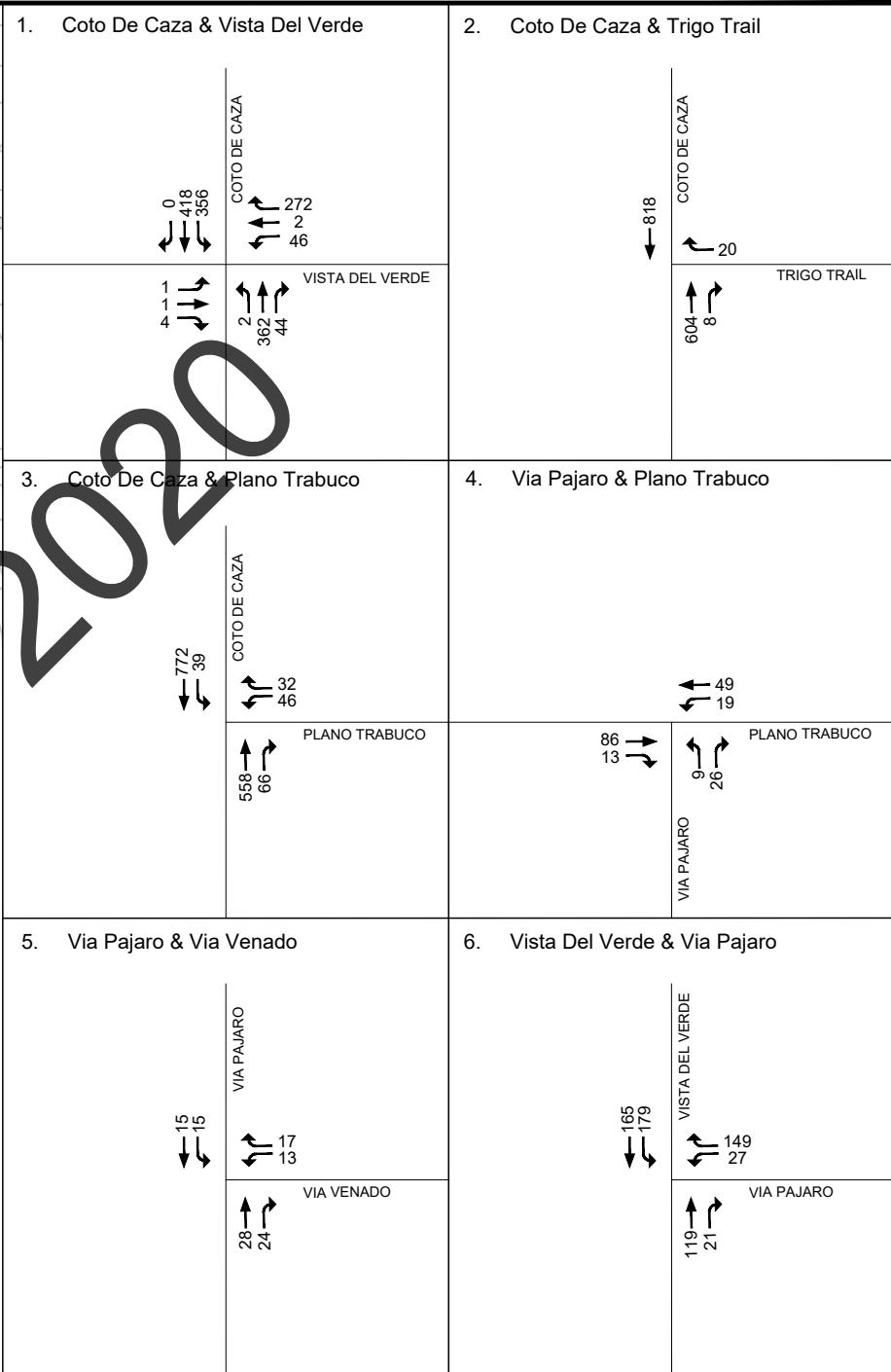
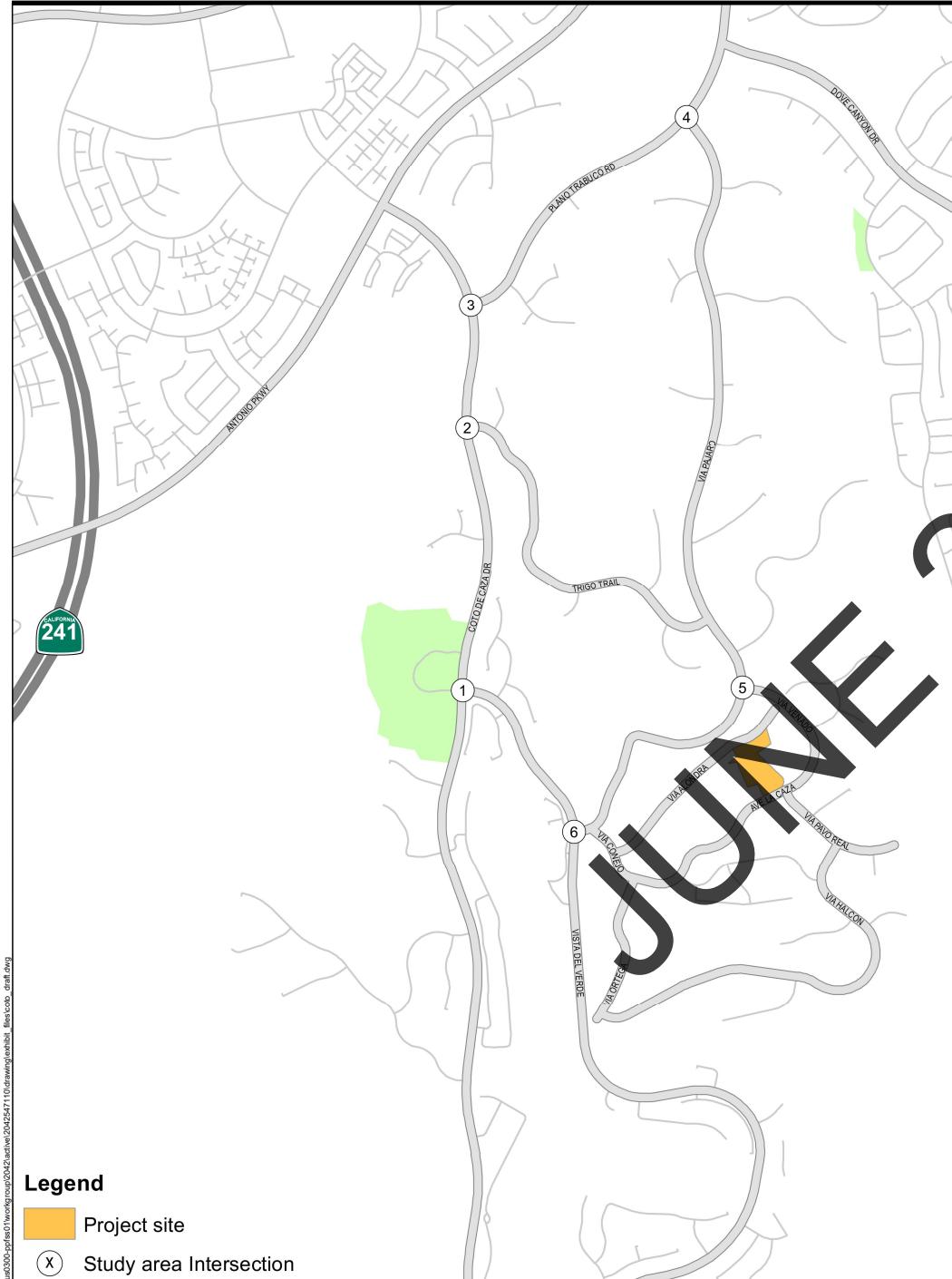


Figure 4-9

Cumulative With Project - PM Peak Hour Volumes

LEGACY AT COTO TRAFFIC STUDY

Conclusion
April 2020

5.0 CONCLUSION

The proposed Project consists of approximately 101 residential units geared toward active seniors and would include resort-type amenities on-site that will not be available to outside residents and a specialty retail store type of use in the gated community of Coto de Caza in south Orange County. The Project would generate approximately 382 trips daily, of which 22 would occur during the AM peak hour and 28 would occur during the PM peak hour. These peak hour trips were assigned to the surrounding street system and added to background traffic volumes to determine the Project impacts.

Primary access to the Project site will be via a driveway on Ave La Caza, with a proposed emergency access on Via Alondra.

Existing conditions with and without Project and a cumulative conditions scenario which includes buildup of the Project together with cumulative projects in the proximity of the study area were analyzed, and the findings of each scenario show that under existing conditions, all study intersections continued to operate at LOS A or B during the AM and PM peak hours. The Project increases the ICU values by 0.02 or less. The Project has no significant impact on the study intersections under existing conditions.

When traffic from cumulative projects was included and evaluated in the existing conditions analysis, the results show that all study intersections continued to operate at LOS A or B during the AM and PM peak hours. The Project increases the ICU values by 0.02 or less. The Project has no significant impact on the study intersections.

In conclusion, the Project was determined to have no significant impact on the surrounding circulation system under existing and cumulative conditions, and therefore no traffic mitigation is needed.



LEGACY AT COTO TRAFFIC STUDY

Appendix A Traffic Count Data

Appendix A TRAFFIC COUNT DATA

JUNE 2020

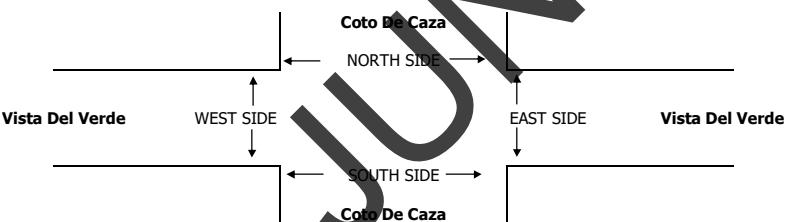


INTERSECTION TURNING MOVEMENT COUNTS

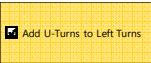
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

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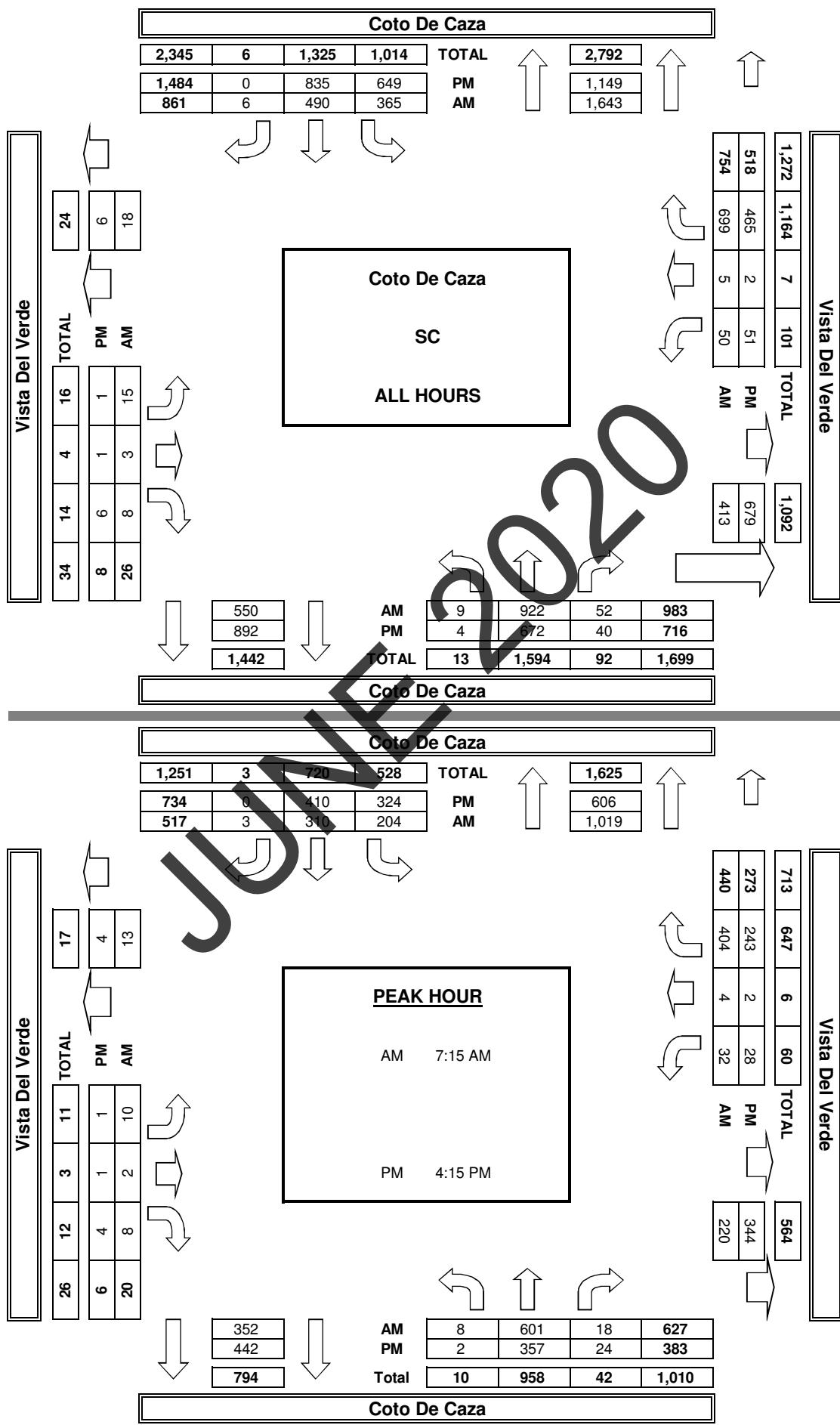
DATE: Wed, Dec 11, 19			LOCATION: NORTH & SOUTH: Coto De Caza EAST & WEST: Vista Del Verde			PROJECT #: LOCATION #: CONTROL:			SC 1 STOP ALL					
NOTES:												AM PM MD OTHER OTHER	N W S E	
	NORTHBOUND Coto De Caza			SOUTHBOUND Coto De Caza			EASTBOUND Vista Del Verde			WESTBOUND Vista Del Verde				
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	
AM	7:00 AM	0	78	4	28	27	1	0	0	5	0	67	210	
	7:15 AM	6	124	4	37	60	1	7	0	6	4	93	346	
	7:30 AM	2	203	6	42	68	1	2	1	7	0	117	450	
	7:45 AM	0	190	3	66	102	0	1	1	8	0	106	478	
	8:00 AM	0	84	5	59	80	1	0	0	11	0	88	330	
	8:15 AM	1	74	13	41	61	1	3	0	7	0	72	273	
	8:30 AM	0	76	13	45	48	0	2	1	0	4	1	76	
	8:45 AM	0	93	4	47	44	1	0	0	2	0	80	271	
	VOLUMES	9	922	52	365	490	6	15	3	50	5	699	2,624	
	APPROACH %	1%	94%	5%	42%	57%	1%	58%	12%	31%	7%	1%	93%	
PM	APP/DEPART	983	/	1,643	861	/	550	26	/	413	754	/	18	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	8	601	18	204	310	3	10	2	8	32	4	404	1,604
	APPROACH %	1%	96%	3%	39%	60%	1%	50%	10%	40%	7%	1%	92%	
	PEAK HR FACTOR	0.743						0.769			0.455			0.839
	APP/DEPART	627	/	1,019	517	/	352	20	220	440	/	13	0	
	4:00 PM	0	82	5	67	115	0	0	0	5	0	55	329	
	4:15 PM	0	107	7	79	91	0	0	0	6	0	68	359	
	4:30 PM	1	76	8	78	99	0	0	0	8	0	57	328	
	4:45 PM	1	101	7	94	104	0	0	0	1	2	46	363	
	5:00 PM	0	73	2	73	116	0	1	1	7	0	72	346	
PM	5:15 PM	2	82	1	87	92	0	0	0	10	0	67	343	
	5:30 PM	0	71	3	88	121	0	0	0	5	0	51	340	
	5:45 PM	0	80	7	83	97	0	0	0	0	0	49	318	
	VOLUMES	4	672	40	649	835	0	1	1	6	51	2	465	2,726
	APPROACH %	1%	94%	6%	44%	56%	0%	17%	13%	75%	10%	0%	90%	
PM	APP/DEPART	716	/	1,149	1,484	/	892	8	679	518	/	6	0	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	2	357	24	324	410	0	1	1	4	28	2	243	1,396
	APPROACH %	1%	93%	6%	44%	56%	0%	17%	17%	67%	10%	1%	89%	
	PEAK HR FACTOR	0.840						0.927			0.500			0.961
	APP/DEPART	383	/	606	734	/	442	0	344	273	/	4	0	



PEDESTRIAN + BIKE CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
TOTAL		0	0	0	0
AM BEGIN PEAK HR					7:15 AM
PM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
TOTAL		0	0	0	0
PM BEGIN PEAK HR					4:15 PM



AimTD LLC
TURNING MOVEMENT COUNTS

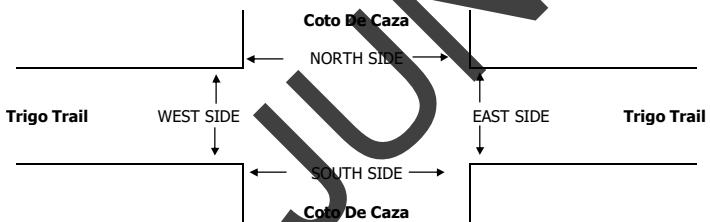


INTERSECTION TURNING MOVEMENT COUNTS

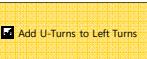
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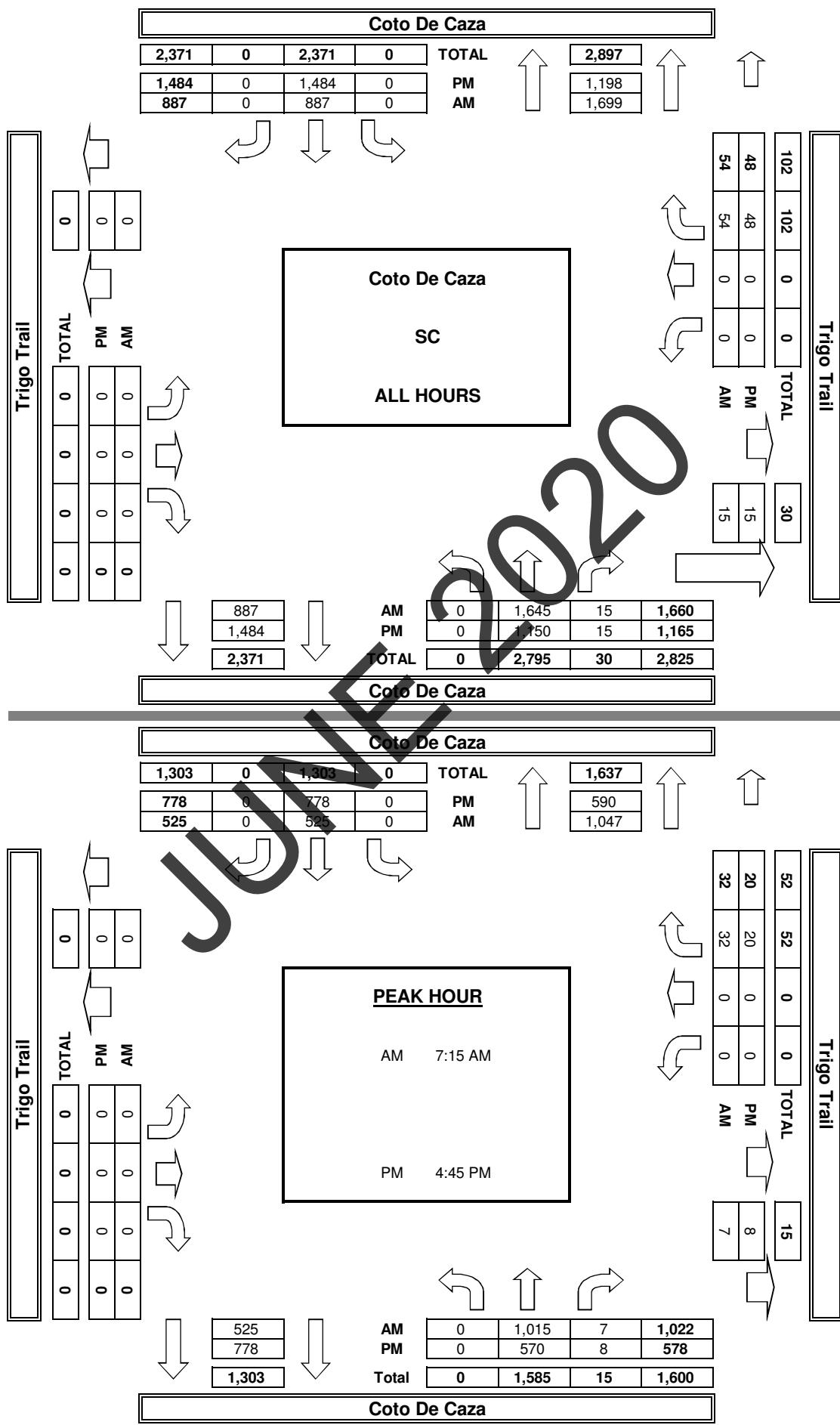
DATE: Wed, Dec 11, 19	LOCATION: NORTH & SOUTH: EAST & WEST:	Coto De Caza Coto De Caza Trigo Trail	PROJECT #: 2 STOP W										
NOTES:			AM PM MD OTHER OTHER	N W S E									
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL X	NT 2	NR 0	SL X	ST 2	SR X	EL X	ET X	ER X	WL X	WT X	WR 1	TOTAL
7:00 AM	0	142	2	0	65	0	0	0	0	0	0	4	213
7:15 AM	0	231	2	0	96	0	0	0	0	0	0	7	336
7:30 AM	0	341	2	0	119	0	0	0	0	0	0	8	470
7:45 AM	0	281	2	0	184	0	0	0	0	0	0	7	474
8:00 AM	0	162	1	0	126	0	0	0	0	0	0	10	299
8:15 AM	0	154	3	0	94	0	0	0	0	0	0	10	263
8:30 AM	0	167	3	0	96	0	0	0	0	0	0	3	269
8:45 AM	0	167	0	0	107	0	0	0	0	0	0	5	279
VOLUMES	0	1,645	15	0	887	0	0	0	0	0	0	54	2,601
APPROACH %	0%	99%	1%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	1,660	/	1,699	887	/	887	0	/	15	54	/	0	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	0	1,015	7	0	525	0	0	0	0	0	0	32	1,579
APPROACH %	0%	99%	1%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR	0.745			0.713			0.000			0.800			0.833
APP/DEPART	1,022	/	1,047	525	/	525	0	/	7	52	/	0	0
4:00 PM	0	137	2	0	180	0	0	0	0	0	0	13	332
4:15 PM	0	173	4	0	183	0	0	0	0	0	0	3	363
4:30 PM	0	136	0	0	167	0	0	0	0	0	0	8	311
4:45 PM	0	150	2	0	204	0	0	0	0	0	0	7	363
5:00 PM	0	145	1	0	190	0	0	0	0	0	0	3	339
5:15 PM	0	153	1	0	179	0	0	0	0	0	0	7	340
5:30 PM	0	122	4	0	205	0	0	0	0	0	0	3	334
5:45 PM	0	134	1	0	176	0	0	0	0	0	0	4	315
VOLUMES	0	1,150	15	0	1,484	0	0	0	0	0	0	48	2,697
APPROACH %	0%	99%	1%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	1,165	/	1,198	1,484	/	1,484	0	/	15	48	/	0	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	0	570	8	0	778	0	0	0	0	0	0	20	1,376
APPROACH %	0%	99%	1%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR	0.816			0.949			0.000			0.625			0.948
APP/DEPART	578	/	590	778	/	778	0	/	8	20	/	0	0



PEDESTRIAN + BIKE CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	0	0	0
	7:15 AM	0	0	0	0
	7:30 AM	0	0	0	0
	7:45 AM	0	0	0	0
	8:00 AM	0	0	0	0
	8:15 AM	0	0	0	0
	8:30 AM	0	0	0	0
	8:45 AM	0	0	0	0
	TOTAL	0	0	0	0
	AM BEGIN PEAK HR	7:15 AM			
PM	4:00 PM	0	0	0	0
	4:15 PM	0	0	0	0
	4:30 PM	0	0	0	0
	4:45 PM	0	0	0	0
	5:00 PM	0	0	0	0
	5:15 PM	0	0	0	0
	5:30 PM	0	0	0	0
	5:45 PM	0	0	0	0
	TOTAL	0	0	0	0
	PM BEGIN PEAK HR	4:45 PM			



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

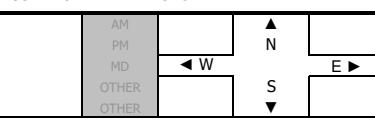
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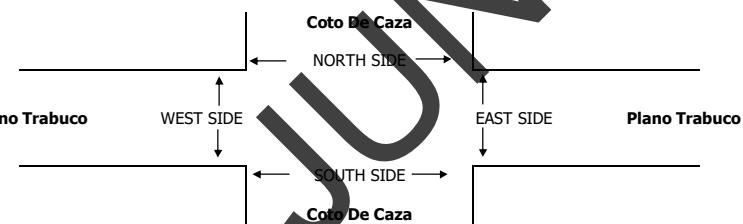
DATE:
Wed, Dec 11, 19

LOCATION: Coto De Caza
NORTH & SOUTH: Coto De Caza
EAST & WEST: Plano Trabuco

PROJECT #: SC
LOCATION #: 3
CONTROL: STOP W

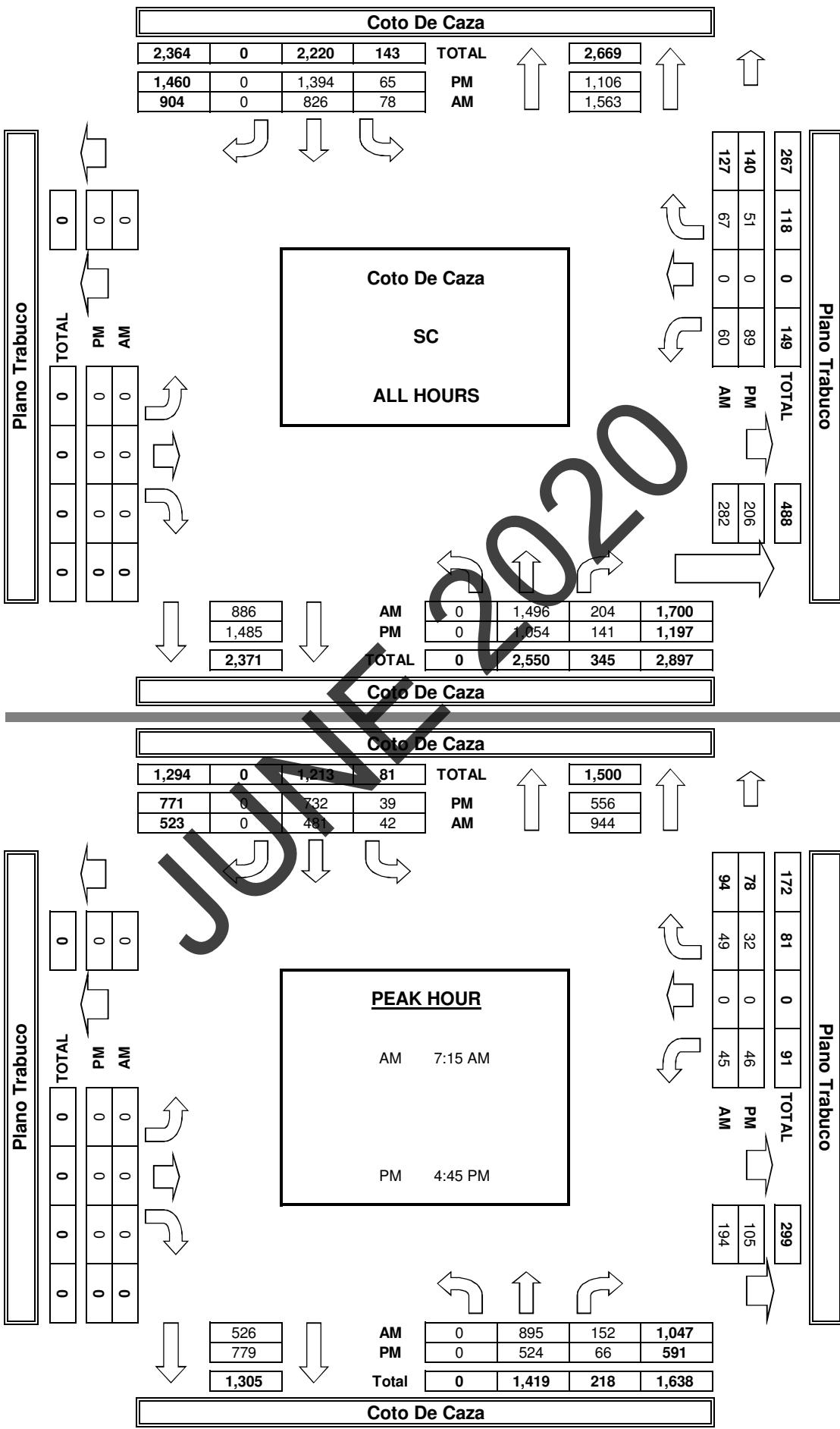


	Northbound			Southbound			Eastbound			Westbound			
	Coto De Caza			Coto De Caza			Plano Trabuco			Plano Trabuco			
LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM	7:00 AM	0	141	14	9	57	0	0	0	2	0	5	228
	7:15 AM	0	184	26	5	90	0	0	0	7	0	8	320
	7:30 AM	0	271	51	10	111	0	0	0	3	0	17	463
	7:45 AM	0	262	69	16	153	0	0	0	21	0	16	537
	8:00 AM	0	178	6	11	127	0	0	0	14	0	8	344
	8:15 AM	0	142	13	7	97	0	0	0	5	0	6	270
	8:30 AM	0	158	12	7	94	0	0	0	5	0	1	277
	8:45 AM	0	160	13	13	97	0	0	0	3	0	5	292
	VOLUMES	0	1,496	204	78	826	0	0	0	60	0	67	2,731
	APPROACH %	0%	88%	12%	9%	91%	0%	0%	0%	47%	0%	53%	
PM	APP/DEPART	1,700	/	1,563	904	/	886	0	/	282	127	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	895	152	42	481	0	0	0	45	0	49	1,664
	APPROACH %	0%	85%	15%	8%	92%	0%	0%	0%	48%	0%	52%	
	PEAK HR FACTOR	0.791		0.774				0.000		0.635			0.775
	APP/DEPART	1,047	/	944	523	/	526	0	/	194	94	/	0
	4:00 PM	0	141	17	4	175	0	0	0	8	0	5	350
	4:15 PM	0	131	23	7	157	0	0	0	14	0	7	339
	4:30 PM	0	139	22	7	167	0	0	0	10	0	6	351
	4:45 PM	0	128	18	8	191	0	0	0	10	0	9	364
PM	5:00 PM	0	128	17	10	174	0	0	0	16	0	6	351
	5:15 PM	0	146	19	10	173	0	0	0	8	0	14	370
	5:30 PM	0	122	12	11	194	0	0	0	12	0	3	354
	5:45 PM	0	119	13	8	163	0	0	0	11	0	1	315
	VOLUMES	0	1,054	141	65	1,394	0	0	0	89	0	51	2,797
	APPROACH %	0%	88%	12%	4%	95%	0%	0%	0%	64%	0%	36%	
	APP/DEPART	1,197	/	1,106	1,460	/	1,485	0	/	206	140	/	0
	BEGIN PEAK HR	4:45 PM											
	VOLUMES	0	524	66	39	732	0	0	0	46	0	32	1,440
	APPROACH %	0%	89%	11%	5%	95%	0%	0%	0%	59%	0%	41%	
	PEAK HR FACTOR	0.895		0.940				0.000		0.886			0.973
	APP/DEPART	591	/	556	771	/	779	0	/	105	78	/	0



AM	7:00 AM		
	7:15 AM		
	7:30 AM		
	7:45 AM		
	8:00 AM		
	8:15 AM		
	8:30 AM		
	8:45 AM		
	TOTAL		
AM	BEGIN	PEAK	HR
	4:00 PM		
	4:15 PM		
	4:30 PM		
	4:45 PM		
	5:00 PM		
	5:15 PM		
	5:30 PM		
	5:45 PM		
	TOTAL		
PM	BEGIN	PEAK	HR

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T218

DATE: Wed, Dec 11, 19

LOCATION: Coto De Caza
NORTH & SOUTH: Via Pajaro
EAST & WEST: Plano Trabuco

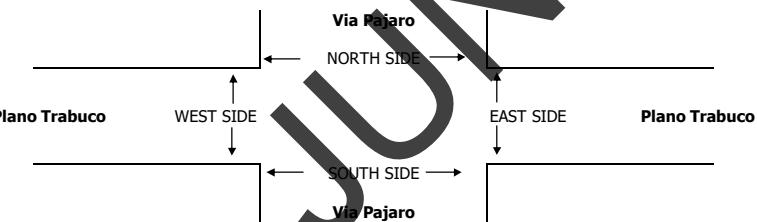
PROJECT #: SC
LOCATION #: 4
CONTROL: STOP N

NOTES:

AM	N	▲	▼
PM	W	◀	▶
MD	S	▼	▲
OTHER	OTHER		



AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Via Pajaro			Via Pajaro			Plano Trabuco			Plano Trabuco			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	2	0	1	0	0	0	0	14	8	1	3	0	29
7:15 AM	2	0	4	0	0	0	0	28	5	0	3	0	42
7:30 AM	4	0	11	0	0	0	0	57	2	3	8	0	85
7:45 AM	2	0	9	0	0	0	0	71	8	6	31	0	127
8:00 AM	2	0	2	0	0	0	0	6	6	4	4	0	24
8:15 AM	1	0	2	0	0	0	0	11	6	1	4	0	25
8:30 AM	0	0	2	0	0	0	0	12	7	2	4	0	27
8:45 AM	1	0	1	0	0	0	0	11	11	0	3	0	27
VOLUMES	14	0	32	0	0	0	0	210	53	17	60	0	386
APPROACH %	30%	0%	70%	0%	0%	0%	0%	80%	20%	22%	78%	0%	
APP/DEPART	46	/	0	0	/	70	263	/	242	77	/	74	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	10	0	25	0	0	0	0	170	23	10	45	0	283
APPROACH %	29%	0%	71%	0%	0%	0%	0%	88%	12%	18%	82%	0%	
PEAK HR FACTOR	0.583	0.000			0.611			0.372			0.557		
APP/DEPART	35	/	0	0	/	33	193	/	195	55	/	55	0
4:00 PM	3	0	6	0	0	0	0	14	2	6	8	0	39
4:15 PM	1	0	3	0	0	0	0	26	4	5	17	0	56
4:30 PM	5	0	7	0	0	0	0	24	2	2	10	0	50
4:45 PM	0	0	6	0	0	0	0	20	4	3	7	0	40
5:00 PM	3	0	9	0	0	0	0	16	3	8	15	0	54
5:15 PM	3	0	1	0	0	0	0	20	1	6	15	0	46
5:30 PM	1	0	2	0	0	0	0	9	9	5	10	0	36
5:45 PM	0	0	3	0	0	0	0	15	3	1	10	0	32
VOLUMES	16	0	37	0	0	0	0	144	28	36	92	0	353
APPROACH %	30%	0%	70%	0%	0%	0%	0%	84%	16%	28%	72%	0%	
APP/DEPART	53	/	0	0	/	64	172	/	181	128	/	108	0
BEGIN PEAK HR	4:15 PM												
VOLUMES	9	0	25	0	0	0	0	86	13	18	49	0	200
APPROACH %	26%	0%	74%	0%	0%	0%	0%	87%	13%	27%	73%	0%	
PEAK HR FACTOR	0.708	0.000			0.625			0.728			0.893		
APP/DEPART	34	/	0	0	/	31	99	/	111	67	/	58	0

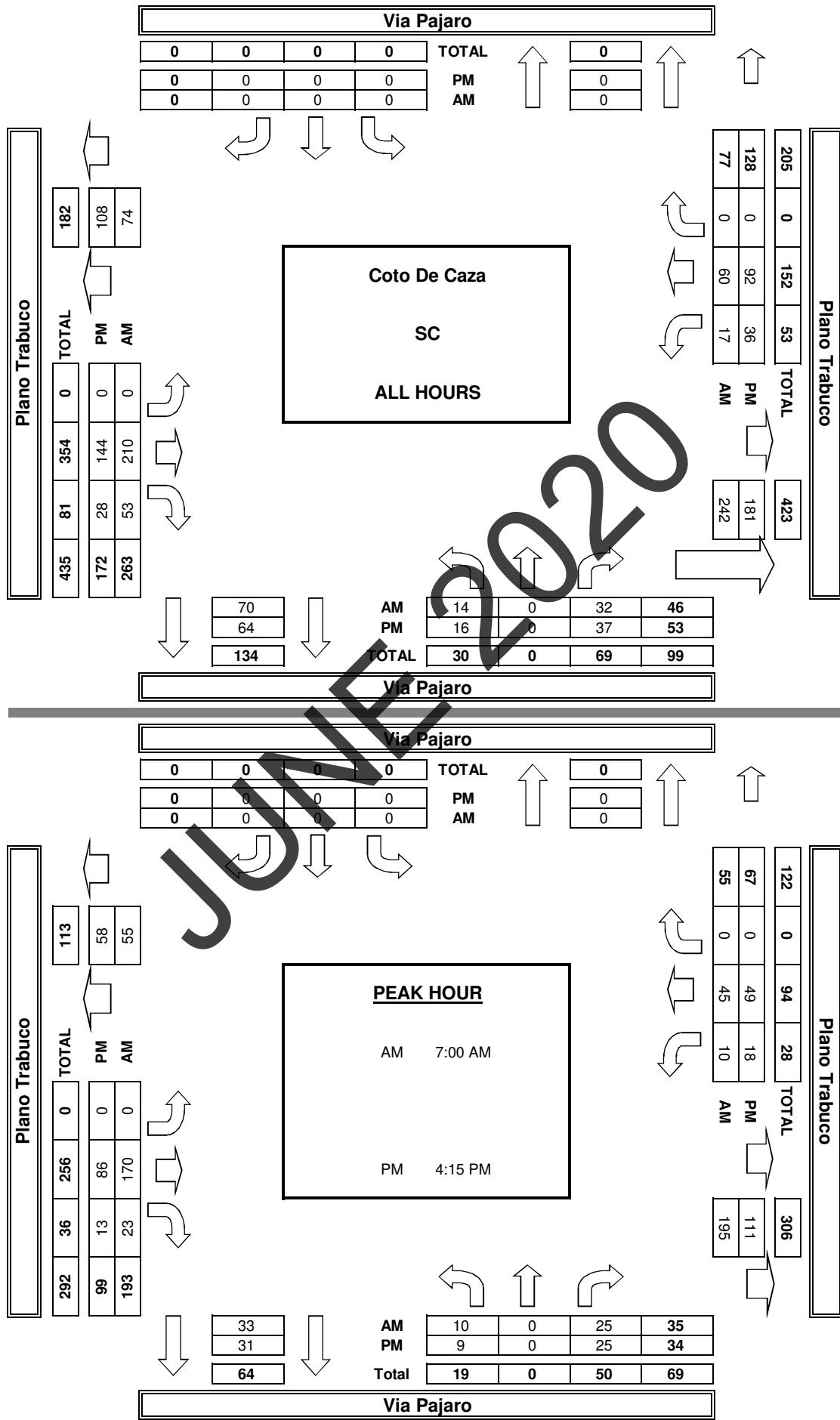


AM	PEDESTRIAN + BIKE CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:00 AM				0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	4:15 PM				0

AM	PEDESTRIAN CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0

PM	BICYCLE CROSSINGS				TOTAL
	NS	SS	ES	WS	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

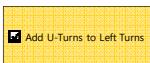
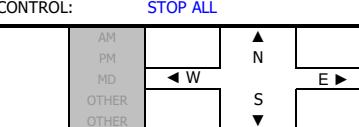
T218

DATE:
Wed, Dec 11, 19

LOCATION: Coto De Caza
NORTH & SOUTH: Via Pajaro
EAST & WEST: Via Venado

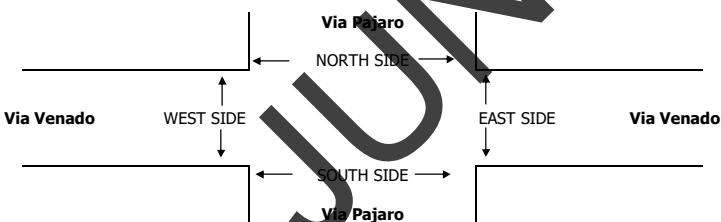
PROJECT #: SC
LOCATION #: 5
CONTROL: STOP ALL

NOTES:



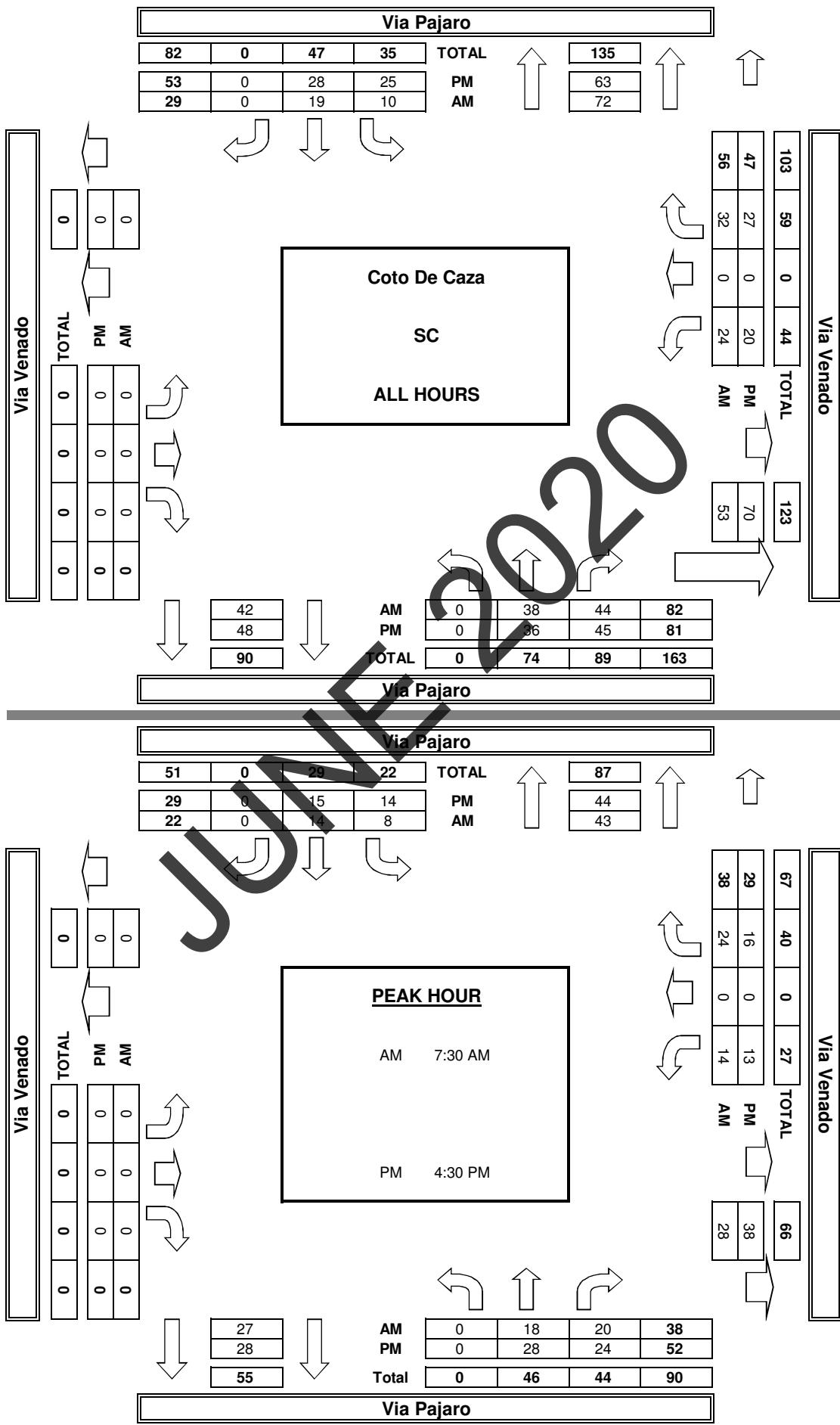
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
		Via Pajaro			Via Pajaro			Via Venado			Via Venado			
LANES:		NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
AM	7:00 AM	0	2	2	0	1	0	0	0	0	3	0	1	9
	7:15 AM	0	5	4	0	0	0	0	0	0	4	0	5	18
	7:30 AM	0	4	4	0	3	0	0	0	0	7	0	6	24
	7:45 AM	0	7	7	3	6	0	0	0	0	0	0	7	30
	8:00 AM	0	6	3	2	5	0	0	0	0	3	0	6	25
	8:15 AM	0	1	6	3	0	0	0	0	0	4	0	5	19
	8:30 AM	0	6	11	1	2	0	0	0	0	1	0	1	22
	8:45 AM	0	7	7	1	2	0	0	0	0	2	0	0	20
	VOLUMES	0	38	44	10	19	0	0	0	0	24	0	32	167
	APPROACH %	0%	46%	54%	34%	66%	0%	0%	0%	0%	43%	0%	57%	
	APP/DEPART	82	/	72	29	/	42	0	/	53	56	/	0	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	0	18	20	8	14	0	0	0	0	14	0	24	98
	APPROACH %	0%	47%	53%	36%	64%	0%	0%	0%	0%	37%	0%	63%	
	PEAK HR FACTOR	0.679			0.611			0.000			0.731			0.817
	APP/DEPART	38	/	43	22	/	27	0	/	28	38	/	0	0
PM	4:00 PM	0	5	5	3	3	0	0	0	0	0	0	3	19
	4:15 PM	0	3	2	2	5	0	0	0	0	3	0	4	19
	4:30 PM	0	8	5	5	3	0	0	0	0	1	0	3	25
	4:45 PM	0	6	6	2	5	0	0	0	0	4	0	4	27
	5:00 PM	0	5	8	3	4	0	0	0	0	5	0	6	31
	5:15 PM	0	9	5	4	3	0	0	0	0	3	0	3	27
	5:30 PM	0	0	10	3	3	0	0	0	0	4	0	2	22
	5:45 PM	0	0	4	3	2	0	0	0	0	0	0	2	11
	VOLUMES	0	36	45	25	28	0	0	0	0	20	0	27	181
	APPROACH %	0%	44%	56%	47%	53%	0%	0%	0%	0%	43%	0%	57%	
	APP/DEPART	81	/	63	53	/	48	0	/	70	47	/	0	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	28	24	14	15	0	0	0	0	13	0	16	110
	APPROACH %	0%	54%	46%	48%	52%	0%	0%	0%	0%	45%	0%	55%	
	PEAK HR FACTOR	0.929			0.906			0.000			0.659			0.887
	APP/DEPART	52	/	44	29	/	28	0	/	38	29	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	1	2
0	0	0	0	0
0	1	0	0	1
0	2	0	1	3



AM	7:00 AM		
	7:15 AM		
	7:30 AM		
	7:45 AM		
	8:00 AM		
	8:15 AM		
	8:30 AM		
	8:45 AM		
	TOTAL		
AM	BEGIN	PEAK	HR
	4:00 PM		
	4:15 PM		
	4:30 PM		
	4:45 PM		
	5:00 PM		
	5:15 PM		
	5:30 PM		
	5:45 PM		
	TOTAL		
PM	BEGIN	PEAK	HR

AimTD LLC
TURNING MOVEMENT COUNTS

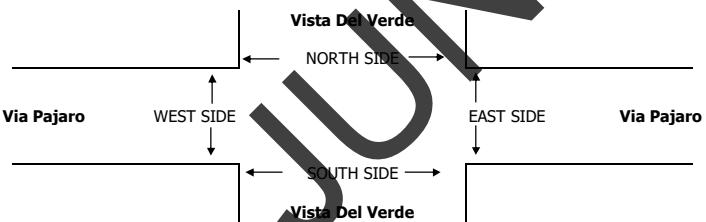


INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

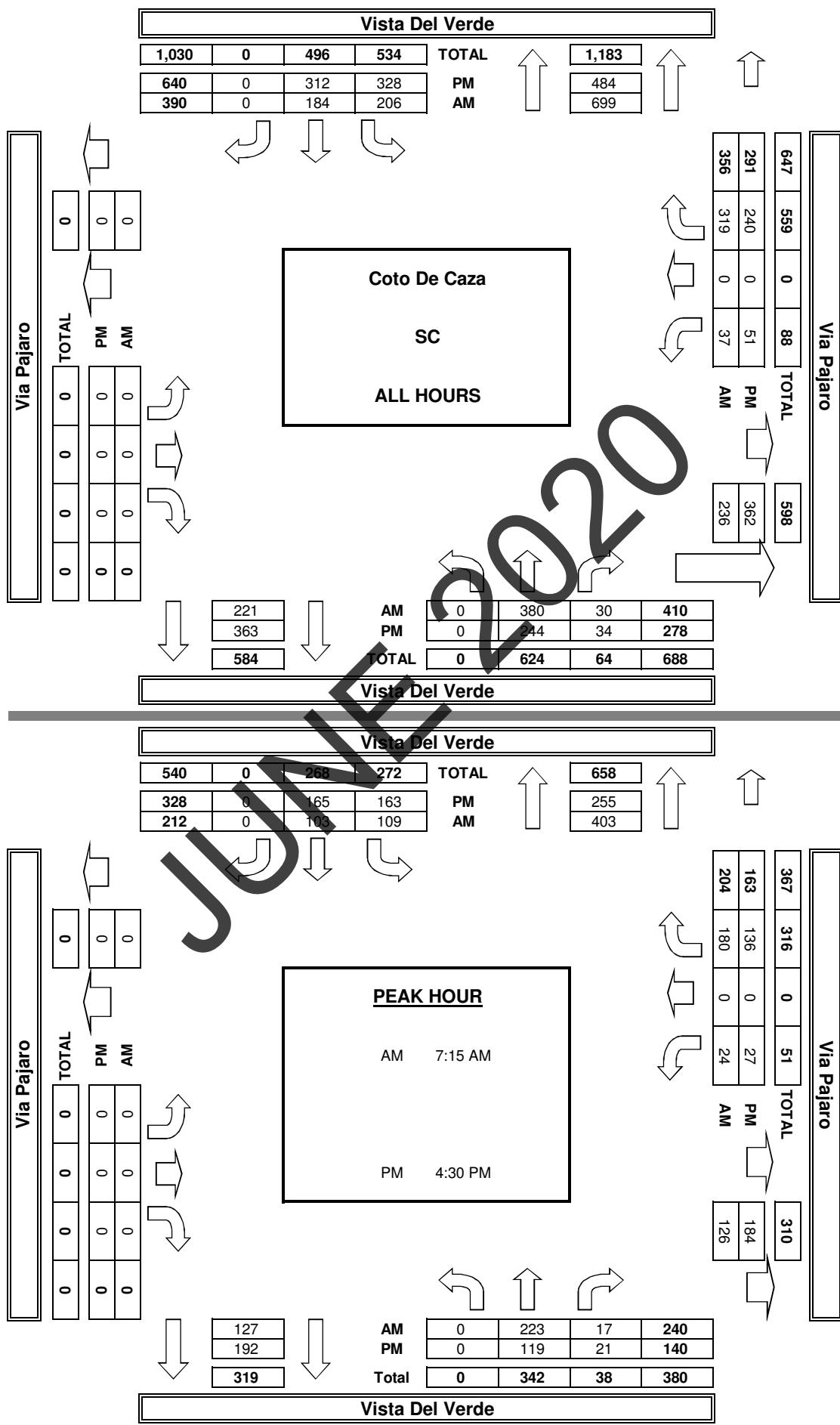
T218

DATE:	LOCATION: Coto De Caza			PROJECT #: SC									
Wed, Dec 11, 19	NORTH & SOUTH: Vista Del Verde			LOCATION #: 6									
EAST & WEST: Via Pajaro	CONTROL: STOP ALL												
NOTES:													
	AM PM		N E	S W									
	◀ W	▶ E	↑ N	↓ S									
	OTHER OTHER												
<input checked="" type="checkbox"/> Add U-Turns to Left Turns													
	NORTHBOUND Vista Del Verde			SOUTHBOUND Vista Del Verde			EASTBOUND Via Pajaro			WESTBOUND Via Pajaro			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
AM	X	1	0	0	1	X	X	X	X	0	X	0	100
7:00 AM	0	35	0	16	14	0	0	0	0	3	0	32	100
7:15 AM	0	58	6	20	20	0	0	0	0	2	0	35	141
7:30 AM	0	60	2	27	20	0	0	0	0	4	0	52	165
7:45 AM	0	59	6	32	33	0	0	0	0	9	0	47	186
8:00 AM	0	46	3	30	30	0	0	0	0	9	0	46	164
8:15 AM	0	37	1	25	23	0	0	0	0	3	0	39	128
8:30 AM	0	42	6	32	22	0	0	0	0	5	0	33	140
8:45 AM	0	43	6	24	22	0	0	0	0	2	0	15	132
VOLUMES	0	380	30	206	184	0	0	0	0	37	0	319	1,156
APPROACH %	0%	93%	7%	53%	47%	0%	0%	0%	0%	10%	0%	90%	
APP/DEPART	410	/	699	390	/	221	0	/	236	356	/	0	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	0	223	17	109	103	0	0	0	0	24	0	180	656
APPROACH %	0%	93%	7%	51%	49%	0%	0%	0%	0%	12%	0%	88%	
PEAK HR FACTOR	0.923			0.815			0.000			0.911			0.882
APP/DEPART	240	/	403	212	/	127	0	/	126	204	/	0	0
PM	4:00 PM	0	34	6	32	37	0	0	0	7	0	23	139
4:15 PM	0	37	1	39	39	0	0	0	0	7	0	31	154
4:30 PM	0	29	6	43	39	0	0	0	0	8	0	32	157
4:45 PM	0	26	5	47	42	0	0	0	0	7	0	25	152
5:00 PM	0	31	4	30	37	0	0	0	0	0	0	41	150
5:15 PM	0	33	6	43	47	0	0	0	0	5	0	38	172
5:30 PM	0	25	3	45	38	0	0	0	0	5	0	27	143
5:45 PM	0	29	3	49	33	0	0	0	0	3	0	23	142
VOLUMES	0	244	34	328	312	0	0	0	0	51	0	240	1,209
APPROACH %	0%	88%	12%	51%	49%	0%	0%	0%	0%	18%	0%	82%	
APP/DEPART	278	/	484	640	/	363	0	/	362	291	/	0	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	0	119	21	163	165	0	0	0	0	27	0	136	631
APPROACH %	0%	85%	15%	50%	50%	0%	0%	0%	0%	17%	0%	83%	
PEAK HR FACTOR	0.897			0.911			0.000			0.849			0.917
APP/DEPART	140	/	255	328	/	192	0	/	184	163	/	0	0



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS			
	N SIDE	S SIDE	E SIDE	W SIDE		N SIDE	S SIDE	E SIDE	W SIDE		NS	SS	ES	WS
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:15 AM				0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:30 PM				0	0	0	0	0	0	0	0	0

AimTD LLC
TURNING MOVEMENT COUNTS



Transportation Studies, Inc.

2640 Walnut Avenue, Suite L
Tustin, CA. 92780

Location : VISTA DEL VERDE (1)	Site: COTO DE CAZA
Segment : E/O COTO DE CAZA DR	Date: 05/08/19
Client : STANTEC	

Interval	WB				EB				Combined				Day:	Wednesday
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
Begin														
12:00	1	2	65	239	10	14	64	271	11	16	129	510		
12:15	0	50			0		54		0		104			
12:30	0	60			2		68		2		128			
12:45	1	64			2		85		3		149			
01:00	0	2	55	216	3	6	76	265	3	8	131	481		
01:15	1	42			1		65		2		107			
01:30	1	55			0		54		1		109			
01:45	0	64			2		70		2		134			
02:00	3	5	52	240	1	4	56	254	4	9	108	494		
02:15	0	55			0		60		0		115			
02:30	1	70			0		70		1		140			
02:45	1	63			3		68		4		131			
03:00	4	9	64	238	0	1	71	328	4	10	135	566		
03:15	1	54			0		86		1		140			
03:30	2	62			0		89		2		151			
03:45	2	58			1		82		3		140			
04:00	2	24	67	279	1	3	82	314	3	27	149	593		
04:15	3	69			1		66		4		135			
04:30	9	72			1		84		10		156			
04:45	10	71			0		82		10		153			
05:00	11	80	78	262	0	14	89	374	11	94	167	636		
05:15	18	67			2		86		20		153			
05:30	22	56			6		101		28		157			
05:45	29	61			6		98		35		159			
06:00	30	181	56	186	8	56	75	322	38	357	131	508		
06:15	31	44			6		78		37		122			
06:30	48	45			15		90		65		135			
06:45	72	41			27		79		99		120			
07:00	88	415	32	88	25	177	60	247	113	592	92	335		
07:15	128	27			40		74		168		101			
07:30	117	13			47		55		164		68			
07:45	82	16			65		58		147		74			
08:00	89	329	16	78	52	193	49	180	141	522	65	258		
08:15	83	28			45		48		128		76			
08:30	81	23			48		40		129		63			
08:45	76	11			48		43		124		54			
09:00	82	277	13	44	44	188	48	132	126	465	61	176		
09:15	69	17			53		34		122		51			
09:30	68	5			49		23		117		28			
09:45	58	9			42		27		100		36			
10:00	70	237	11	37	46	164	22	62	116	401	33	99		
10:15	60	10			42		16		102		26			
10:30	54	12			46		15		100		27			
10:45	53	4			30		9		83		13			
11:00	54	248	2	9	47	169	11	41	101	417	13	50		
11:15	58	1			48		11		106		12			
11:30	76	2			44		8		120		10			
11:45	60	4			30		11		90		15			
Totals	1,809	1,916			989	2,790			2,798	4,706				
Split%	64.7	40.7			35.3	59.3								
Day Totals		3,725			3,779				7,504					
Day Splits		49.6			50.4									
Peak Hour	07:15	04:15			07:45	05:00			07:15	05:00				
Volume	416	290			210	374			620	636				
Factor	0.81	0.93			0.81	0.93			0.92	0.95				

Transportation Studies, Inc.

2640 Walnut Avenue, Suite L
Tustin, CA. 92780

Location	: VISTA DEL VERDE (2)										Site:	COTO DE CAZA	
Segment	: N/O VIA PAJARO										Date:	05/08/19	
Client	: STANTEC												
Interval	SB				NB				Combined			Day:	Wednesday
Begin	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM			
12:00	7	11	60	259	0	0	67	246	7	11	127	505	
12:15	0	50			0	54			0		104		
12:30	1	65			0	61			1		126		
12:45	3	84			0	64			3		148		
01:00	2	5	78	259	0	2	66	222	2	7	144	481	
01:15	2	61			1	40			3		101		
01:30	0	53			1	52			1		105		
01:45	1	67			0	64			1		131		
02:00	1	4	52	238	2	4	54	250	3	8	106	488	
02:15	0	48			0	60			0		108		
02:30	0	73			1	68			1		141		
02:45	3	65			1	68			4		133		
03:00	0	1	72	316	4	10	65	241	4	11	137	557	
03:15	0	78			2	56			2		134		
03:30	0	78			2	61			2		139		
03:45	1	88			2	59			3		147		
04:00	1	4	84	300	2	25	74	284	3	29	158	584	
04:15	1	58			2	68			3		126		
04:30	1	78			10	72			11		150		
04:45	1	80			11	70			12		150		
05:00	0	14	84	360	12	85	74	264	12	99	158	624	
05:15	2	85			19	70			21		155		
05:30	6	91			24	60			30		151		
05:45	6	100			30	60			36		160		
06:00	9	53	62	295	28	177	52	192	37	230	114	487	
06:15	6	71			31	46			37		117		
06:30	13	88			50	48			65		136		
06:45	25	74			68	46			93		120		
07:00	24	179	64	235	92	445	37	93	116	624	101	328	
07:15	34	63			145	28			179		91		
07:30	54	54			120	12			174		66		
07:45	67	54			88	16			155		70		
08:00	41	186	49	176	90	346	20	79	131	532	69	255	
08:15	47	48			86	25			133		73		
08:30	44	38			84	24			128		62		
08:45	54	41			86	10			140		51		
09:00	40	185	49	129	78	270	14	44	118	455	63	173	
09:15	43	34			66	16			109		50		
09:30	54	21			66	6			120		27		
09:45	48	25			60	8			108		33		
10:00	42	147	20	57	66	234	12	36	108	381	32	93	
10:15	34	14			64	8			98		22		
10:30	43	16			52	11			95		27		
10:45	28	7			52	5			80		12		
11:00	42	158	13	42	57	254	2	9	99	412	15	51	
11:15	48	11			60	1			108		12		
11:30	40	6			76	2			116		8		
11:45	28	12			61	4			89		16		
Totals	947	2,666			1,852	1,960			2,799		4,626		
Split%	33.8	57.6			66.2	42.4							
Day Totals		3,613			3,812				7,425				
Day Splits		48.7			51.3								
Peak Hour	07:30	05:00			07:00	04:30			07:15	05:00			
Volume	209	360			445	286			639	624			
Factor	0.78	0.90			0.77	0.97			0.89	0.98			

Transportation Studies, Inc.

2640 Walnut Avenue, Suite L
Tustin, CA. 92780

Location	: VIA PAJARO (3)		Site:	COTA DE CAZA
Segment	: E/O VISTA DEL VERDE		Date:	05/08/19
Client	: STANTEC			

Interval Begin	EB			WB			Combined			Day:	Wednesday
	AM	PM		AM	PM		AM	PM			
12:00	2	2	38	150	2	3	43	205	4	5	81 355
12:15	0		30		0		36		0		66
12:30	0		40		0		66		0		106
12:45	0		42		1		60		1		102
01:00	0	1	35	135	3	5	67	237	3	6	102 372
01:15	0		28		2		70		2		98
01:30	1		37		0		47		1		84
01:45	0		35		0		53		0		88
02:00	0	1	30	149	2	8	47	208	2	9	77 357
02:15	0		28		0		44		0		72
02:30	0		57		0		59		0		116
02:45	1		34		6		58		7		92
03:00	4	8	44	157	0	0	64	308	4	8	108 465
03:15	0		36		0		68		0		104
03:30	2		36		0		87		2		123
03:45	2		41		0		89		2		130
04:00	1	12	38	166	2	4	88	286	3	16	126 452
04:15	0		40		0		68		0		108
04:30	5		46		1		72		6		118
04:45	6		42		1		58		7		100
05:00	7	42	54	165	0	12	70	308	7	54	124 473
05:15	8		37		2		76		10		113
05:30	15		34		4		80		19		114
05:45	12		40		6		82		18		122
06:00	14	84	31	105	8	65	72	281	22	449	103 386
06:15	16		28		8		54		24		82
06:30	22		22		17		88		39		110
06:45	32		24		32		67		64		91
07:00	40	228	20	63	10	130	65	215	50	358	85 278
07:15	64		18		28		50		92		68
07:30	63		10		46		44		109		54
07:45	61		15		46		56		107		71
08:00	48	194	11	44	46	198	46	176	94	392	57 220
08:15	46		12		44		56		90		68
08:30	54		14		42		40		96		54
08:45	46		7		66		34		112		41
09:00	42	156	7	36	38	181	51	110	80	337	58 146
09:15	44		16		39		24		83		40
09:30	34		6		60		19		94		25
09:45	36		7		44		16		80		23
10:00	42	156	8	29	50	159	16	53	92	315	24 82
10:15	40		8		46		12		86		20
10:30	40		11		37		19		77		30
10:45	34		2		26		6		60		8
11:00	22	131	2	7	44	142	13	36	66	273	15 43
11:15	30		1		34		4		64		5
11:30	46		2		34		10		80		12
11:45	33		2		30		9		63		11

Totals	1,015	1,206	907	2,423	1,922	3,629
Split%	52.8	33.2	47.2	66.8		

Day Totals	2,221	3,330	5,551
Day Splits	40.0	60.0	

Peak Hour	07:15	04:15	08:45	03:15	07:15	03:30
Volume	236	182	203	332	402	487
Factor	0.92	0.84	0.77	0.93	0.92	0.94

Transportation Studies, Inc.

2640 Walnut Avenue, Suite L
Tustin, CA. 92780

Location : VIA CONEJO (4)
Segment : S/O VIA PAJARO
Client : STANTEC

Site: COTO DE CAZA
Date: 05/08/19

Interval	SB				NB			Combined			Day:	Wednesday
	AM		PM		AM		PM	AM		PM		
Begin												
12:00	1	2	17	100	0	0	26	108	1	2	43	208
12:15	0		16		0		22		0		38	
12:30	0		32		0		22		0		54	
12:45	1		35		0		38		1		73	
01:00	1	2	34	124	0	1	26	101	1	3	60	225
01:15	1		34		0		26		1		60	
01:30	0		26		1		24		1		50	
01:45	0		30		0		25		0		55	
02:00	1	4	16	79	0	2	29	112	1	6	45	191
02:15	0		16		0		16		0		32	
02:30	0		29		0		37		0		66	
02:45	3		18		2		30		5		48	
03:00	0	1	30	142	3	6	24	107	3	7	54	249
03:15	0		34		0		30		0		64	
03:30	0		40		2		26		2		66	
03:45	1		38		1		27		2		65	
04:00	1	2	48	154	2	14	20	110	3	16	68	264
04:15	0		28		0		28		0		56	
04:30	0		37		6		30		6		67	
04:45	1		41		6		32		7		75	
05:00	0	5	38	156	6	33	28	116	6	38	66	272
05:15	0		35		6		27		6		62	
05:30	4		40		11		27		15		67	
05:45	1		43		10		34		11		77	
06:00	3	23	41	150	12	80	22	81	15	103	63	231
06:15	2		28		16		19		18		47	
06:30	5		44		20		16		25		60	
06:45	13		37		32		24		45		61	
07:00	8	66	39	107	37	185	14	46	45	251	53	153
07:15	16		22		52		12		68		34	
07:30	24		18		52		10		76		28	
07:45	18		28		44		10		62		38	
08:00	18	94	26	91	42	182	12	48	60	276	38	139
08:15	24		27		48		14		72		41	
08:30	20		18		48		12		68		30	
08:45	32		20		44		10		76		30	
09:00	16	70	28	64	38	132	7	35	54	202	35	99
09:15	16		14		36		16		52		30	
09:30	22		12		30		6		52		18	
09:45	16		10		28		6		44		16	
10:00	21	76	10	32	36	113	6	23	57	189	16	55
10:15	24		9		34		4		58		13	
10:30	17		9		23		11		40		20	
10:45	14		4		20		2		34		6	
11:00	20	70	8	27	20	85	3	13	40	155	11	40
11:15	18		3		15		2		33		5	
11:30	18		8		29		4		47		12	
11:45	14		8		21		4		35		12	
Totals	415		1,226		833		900		1,248		2,126	
Split%	33.3		57.7		66.7		42.3					

Day Totals 1,641 1,733 3,374
Day Splits 48.6 51.4

Peak Hour	08:00	03:15	07:15	02:30	08:00	05:00
Volume	94	160	190	121	276	272
Factor	0.73	0.83	0.91	0.82	0.91	0.88

Transportation Studies, Inc.

2640 Walnut Avenue, Suite L
Tustin, CA. 92780

Location : AVE LA CAZA (5)
Segment : S/O VIA PAVO REAL
Client : STANTEC

Site: COTO DE CAZA
Date: 05/08/19

Interval	NB				SB			Combined			Day:	Wednesday
	AM		PM		AM		PM	AM		PM		
12:00	0	0	4	27	0	0	6	23	0	0	10	50
12:15	0		5		0		3		0		8	
12:30	0		4		0		4		0		8	
12:45	0		14		0		10		0		24	
01:00	0	0	11	32	0	0	6	28	0	0	17	60
01:15	0		7		0		4		0		11	
01:30	0		4		0		8		0		12	
01:45	0		10		0		10		0		20	
02:00	0	0	4	16	0	0	10	25	0	0	14	41
02:15	0		4		0		3		0		7	
02:30	0		3		0		10		0		13	
02:45	0		5		0		2		0		7	
03:00	0	0	4	22	0	1	3	18	0	1	7	40
03:15	0		4		0		4		0		8	
03:30	0		9		0		4		0		13	
03:45	0		5		1		7		1		12	
04:00	0	0	6	22	0	1	1	19	0	1	7	41
04:15	0		8		0		4		0		12	
04:30	0		3		0		4		0		7	
04:45	0		5		1		10		1		15	
05:00	1	4	9	29	1	6	6	21	2	10	15	50
05:15	1		4		1		4		2		8	
05:30	2		4		2		7		4		11	
05:45	0		12		2		4		2		16	
06:00	0	1	4	17	0	13	3	4	0	14	7	21
06:15	0		4		4		0		4		4	
06:30	0		4		1		0				4	
06:45	1		5		8		1		9		6	
07:00	2	16	7	15	6	24	0	9	8	40	7	24
07:15	4		4		6		2		10		6	
07:30	3		2		6		4		9		6	
07:45	7		2		6		3		13		5	
08:00	4	24	4	10	2	18	2	5	6	42	6	15
08:15	6		2		7		1		13		3	
08:30	4		1		3		0		7		1	
08:45	10		3		6		2		16		5	
09:00	2	8	2	5	9	28	2	6	11	36	4	11
09:15	2		0		7		2		9		2	
09:30	2		3		9		2		11		5	
09:45	2		0		3		0		5		0	
10:00	9	20	1	2	3	18	2	3	12	38	3	5
10:15	3		0		8		0		11		0	
10:30	4		0		5		0		9		0	
10:45	4		1		2		1		6		2	
11:00	6	41	1	3	3	18	1	1	9	59	2	4
11:15	10		0		4		0		14		0	
11:30	22		0		9		0		31		0	
11:45	3		2		2		0		5		2	
Totals	114		200		127		162		241		362	
Split%	47.3		55.2		52.7		44.8					
Day Totals		314			289				603			
Day Splits		52.1			47.9							
Peak Hour	10:45		12:30		08:45		01:45		10:45		12:45	
Volume	42		36		31		33		60		64	
Factor	0.48		0.64		0.86		0.82		0.48		0.67	

JUNE 2020

Transportation Studies, Inc.

2640 Walnut Avenue, Suite L
Tustin, CA. 92780

Location : VIA VENADO (6)
Segment : E/O VIA PAJARO
Client : STANTEC

Site: COTO DE CAZA
Date: 05/08/19

Interval	EB				WB			Combined		Day:	Wednesday
Begin	AM		PM		AM		PM	AM		PM	
12:00	0	0	6	29	0	0	12	42	0	18	71
12:15	0		5		0		4		0		9
12:30	0		5		0		12		0		17
12:45	0		13		0		14		0		27
01:00	0	0	4	31	0	0	6	26	0	10	57
01:15	0		14		0		6		0		20
01:30	0		5		0		8		0		13
01:45	0		8		0		6		0		14
02:00	0	0	5	28	0	0	4	24	0	9	52
02:15	0		4		0		8		0		12
02:30	0		11		0		6		0		17
02:45	0		8		0		6		0		14
03:00	0	0	5	36	0	0	6	31	0	11	67
03:15	0		8		0		6		0		14
03:30	0		11		0		9		0		20
03:45	0		12		0		10		0		22
04:00	0	0	9	33	0	0	5	31	0	14	64
04:15	0		10		0		8		0		18
04:30	0		8		0		10		0		18
04:45	0		6		0		8		0		14
05:00	0	1	7	45	0	9	12	31	0	10	76
05:15	1		11		2		7		3		18
05:30	0		16		3		4		3		20
05:45	0		11		4		8		4		19
06:00	1	6	7	30	2	15	6	27	3	21	13
06:15	1		6		6		2		7		8
06:30	2		10		5		13				23
06:45	2		7		2		6		4		13
07:00	1	14	3	17	8	34	0	9	48	3	26
07:15	2		5		11		1		13		6
07:30	4		6		5		2		9		8
07:45	7		3		10		6		17		9
08:00	6	19	5	15	10	25	1	3	16	44	6
08:15	3		4		8		2		11		6
08:30	2		5		3		0		5		5
08:45	8		1		4		0		12		1
09:00	2	23	4	8	8	27	0	1	10	50	4
09:15	7		3		8		1		15		4
09:30	6		0		3		0		9		0
09:45	8		1		8		0		16		1
10:00	3	10	1	1	10	35	0	0	13	45	1
10:15	3		0		7		0		10		0
10:30	2		0		8		0		10		0
10:45	2		0		10		0		12		0
11:00	5	17	0	0	5	22	0	1	10	39	0
11:15	8		0		6		0		14		0
11:30	2		0		6		0		8		0
11:45	2		0		5		1		7		1
Totals	90		273		167		226		257		499
Split%	35.0		54.7		65.0		45.3				
Day Totals		363			393				756		
Day Splits		48.0			52.0						
Peak Hour	09:15		05:00		07:15		12:00		07:15		05:00
Volume	24		45		36		42		55		76
Factor	0.75		0.70		0.82		0.75		0.81		0.95

JUNE 2020

Transportation Studies, Inc.

2640 Walnut Avenue, Suite L
Tustin, CA. 92780

Location : VIA PAJARO (7)
Segment : S/O VIA VENADO
Client : STANTEC

Site: COTO DE CAZA
Date: 05/08/19

Interval Begin	NB			SB			Combined			Day:	Wednesday	
	AM	PM		AM	PM		AM	PM				
12:00	0	0	6	30	0	0	14	41	0	20	71	
12:15	0		4		0		6		0		10	
12:30	0		9		0		13		0		22	
12:45	0		11		0		8		0		19	
01:00	1	1	5	31	0	0	7	21	1	12	52	
01:15	0		12		0		2		0		14	
01:30	0		6		0		7		0		13	
01:45	0		8		0		5		0		13	
02:00	0	0	8	36	0	0	4	30	0	12	66	
02:15	0		10		0		14		0		24	
02:30	0		9		0		7		0		16	
02:45	0		9		0		5		0		14	
03:00	0	0	10	51	1	1	8	30	1	18	81	
03:15	0		8		0		6		0		14	
03:30	0		15		0		6		0		21	
03:45	0		18		0		10		0		28	
04:00	0	0	7	35	0	0	6	23	0	0	58	
04:15	0		12		0		8		0		20	
04:30	0		10		0		3		0		13	
04:45	0		6		0		6		0		12	
05:00	0	2	8	33	0	5	10	31	0	7	64	
05:15	0		10		1		9		1		19	
05:30	0		8		0		6		0		14	
05:45	2		7		4		6		6		13	
06:00	1	8	6	33	0	5	6	21	1	13	54	
06:15	2		6		1		6		3		12	
06:30	2		14		3		6		5		20	
06:45	3		7		1		3		4		10	
07:00	7	39	6	27	3	24	4	12	10	63	10	39
07:15	5		7		5		2		10		9	
07:30	15		9		6		0		21		9	
07:45	12		5		10		6		22		11	
08:00	10	29	4	17	2	16	2	3	12	45	6	20
08:15	5		6		5		1		10		7	
08:30	4		7		3		0		7		7	
08:45	10		0		6		0		16		0	
09:00	4	37	3	5	2	17	2	8	6	54	5	13
09:15	11		2		6		3		17		5	
09:30	12		0		3		0		15		0	
09:45	10		0		6		3		16		3	
10:00	10	25	1	3	6	26	1	6	16	51	2	9
10:15	3		0		7		3		10		3	
10:30	6		2		8		2		14		4	
10:45	6		0		5		0		11		0	
11:00	5	24	0	0	5	22	1	2	10	46	1	2
11:15	8		0		7		0		15		0	
11:30	6		0		7		0		13		0	
11:45	5		0		3		1		8		1	

Totals	165	301	116	228	281	529
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Split%	58.7	56.9	41.3	43.1		
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Day Totals	466	344	810
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Day Splits	57.5	42.5	
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Peak Hour	09:15	03:30	09:45	12:00	07:15	03:30
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Volume	43	52	27	41	65	82
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Factor	0.90	0.72	0.84	0.73	0.74	0.73
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Wednesday, December 11, 2019

CITY: Coto De Caza

PROJECT:

ADT1 Via Pajaro north of Via Venado.**Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	14	3		
0:15	0	0			12:15	8	3		
0:30	0	0			12:30	10	7		
0:45	0	0	0	0	12:45	7	39	5	18
									57
1:00	0	0			13:00	8	7		
1:15	0	0			13:15	6	0		
1:30	0	0			13:30	6	7		
1:45	0	0	0	0	13:45	9	29	0	14
									43
2:00	0	0			14:00	4	0		
2:15	0	0			14:15	7	8		
2:30	0	0			14:30	13	4		
2:45	0	0	0	0	14:45	10	34	5	17
									51
3:00	0	0			15:00	11	4		
3:15	0	0			15:15	6	6		
3:30	0	0			15:30	12	6		
3:45	0	0	0	0	15:45	10	39	7	23
									62
4:00	0	0			16:00	8	6		
4:15	0	0			16:15	7	7		
4:30	0	0			16:30	12	8		
4:45	0	0	0	0	16:45	10	37	7	28
									65
5:00	0	0			17:00	12	8		
5:15	0	0			17:15	11	7		
5:30	2	0			17:30	2	6		
5:45	2	4	0	0	17:45	2	27	4	25
									52
6:00	0	0			18:00	4	7		
6:15	0	0			18:15	3	5		
6:30	8	2			18:30	7	6		
6:45	2	10	2	4	18:45	9	23	8	26
									49
7:00	5	2			19:00	4	3		
7:15	11	0			19:15	4	0		
7:30	12	4			19:30	7	4		
7:45	12	40	8	14	19:45	16	31	6	13
									44
8:00	10	7			20:00	14	0		
8:15	9	3			20:15	9	0		
8:30	6	3			20:30	3	2		
8:45	10	35	3	16	20:45	10	36	0	2
									38
9:00	8	7			21:00	0	0		
9:15	10	6			21:15	3	3		
9:30	8	3			21:30	2	2		
9:45	6	32	3	19	21:45	2	7	0	5
									12
10:00	7	6			22:00	0	0		
10:15	6	3			22:15	0	2		
10:30	8	5			22:30	0	0		
10:45	6	27	2	16	22:45	0	0	0	2
									2
11:00	9	3			23:00	0	0		
11:15	7	4			23:15	0	0		
11:30	7	2			23:30	0	0		
11:45	8	31	3	12	23:45	0	0	0	0
Total Vol.	179	81			260	302	173		475

	Daily Totals			
	NB	SB	EB	Combined
	481	254		735
AM				
Split %	68.8%	31.2%	35.4%	
Peak Hour	7:15	7:30	7:30	
Volume	45	22	65	
P.H.F.	0.94	0.69	0.81	
PM				
	63.6%	36.4%		64.6%
	19:30	16:15		16:30
	46	30		75
	0.80	0.94		0.94

Wednesday, December 11, 2019

CITY: Coto De Caza

PROJECT:

ADT2 Coto De Caza south of Vista Del Verde.**Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	2	2			12:00	72	71		
0:15	5	4			12:15	82	82		
0:30	0	9			12:30	73	78		
0:45	0	7	0	15	22	12:45	67 294	94 325	619
1:00	0	0			13:00	80	67		
1:15	0	4			13:15	80	70		
1:30	0	0			13:30	70	72		
1:45	0	0	0	4	4	13:45	79 309	73 282	591
2:00	0	0			14:00	85	83		
2:15	0	0			14:15	84	61		
2:30	0	0			14:30	104	67		
2:45	0	0	0	0	14:45	89 362	105 316		678
3:00	0	0			15:00	76	157		
3:15	0	0			15:15	98	121		
3:30	0	0			15:30	80	106		
3:45	2	2	3	3	5	15:45	91 345	108 492	837
4:00	3	0			16:00	91	126		
4:15	3	0			16:15	110	96		
4:30	7	2			16:30	87	104		
4:45	7	20	5	7	27	16:45	105 393	117 443	836
5:00	7	3			17:00	74	118		
5:15	8	3			17:15	89	108		
5:30	12	4			17:30	77	127		
5:45	14	41	3	13	54	17:45	85 325	99 447	772
6:00	25	10			18:00	57	101		
6:15	30	16			18:15	60	96		
6:30	41	18			18:30	70	105		
6:45	73	169	26	70	239	18:45	67 254	103 405	659
7:00	81	33			19:00	52	78		
7:15	132	68			19:15	31	80		
7:30	221	72			19:30	24	61		
7:45	171	605	113	286	891	19:45	25 132	69 288	420
8:00	82	87			20:00	19	46		
8:15	94	71			20:15	27	64		
8:30	92	57			20:30	31	68		
8:45	100	368	51	266	634	20:45	28 105	71 249	354
9:00	90	71			21:00	17	41		
9:15	111	56			21:15	21	38		
9:30	81	64			21:30	16	38		
9:45	92	374	66	257	631	21:45	8 62	20 137	199
10:00	91	63			22:00	13	20		
10:15	77	55			22:15	6	20		
10:30	60	54			22:30	3	14		
10:45	70	298	70	242	540	22:45	2 24	12 66	90
11:00	88	56			23:00	7	12		
11:15	74	59			23:15	3	7		
11:30	59	79			23:30	3	4		
11:45	81	302	74	268	570	23:45	5 18	8 31	49
Total Vol.	2186	1431			3617		2623	3481	6104

	Daily Totals			
	NB	SB	EB	WB
	4809	4912		9721

AM

Split %	60.4%	39.6%	37.2%
Peak Hour	7:15	7:30	7:15
Volume	606	343	946
P.H.F.	0.69	0.76	0.81

PM

Split %	43.0%	57.0%	62.8%
Peak Hour	16:00	15:00	15:00
Volume	393	492	837
P.H.F.	0.85	0.78	0.90

Wednesday, December 11, 2019

CITY: Coto De Caza

PROJECT:

ADT3 Coto De Caza south of Via Peralta.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	2	5			12:00	119	125		
0:15	8	10			12:15	132	133		
0:30	0	10			12:30	122	122		
0:45	0	10	2	27	37	12:45	114 487	153 533	1020
1:00	4	5			13:00	131	140		
1:15	2	4			13:15	132	122		
1:30	0	0			13:30	126	138		
1:45	0	6	3	12	18	13:45	132 521	121 521	1042
2:00	0	0			14:00	129	137		
2:15	3	0			14:15	131	108		
2:30	3	0			14:30	152	142		
2:45	2	8	0	0	8	14:45	162 574	163 550	1124
3:00	0	0			15:00	131	228		
3:15	0	0			15:15	150	180		
3:30	4	0			15:30	126	178		
3:45	8	12	3	3	15	15:45	152 559	199 785	1344
4:00	5	0			16:00	149	185		
4:15	6	0			16:15	160	167		
4:30	8	0			16:30	145	178		
4:45	11	30	4	4	34	16:45	151 605	198 723	1328
5:00	22	3			17:00	140	185		
5:15	17	6			17:15	156	183		
5:30	39	4			17:30	129	208		
5:45	35	113	10	23	136	17:45	127 552	172 748	1300
6:00	45	13			18:00	108	204		
6:15	53	21			18:15	106	176		
6:30	85	30			18:30	114	191		
6:45	113	296	42	106	402	18:45	105 433	175 746	1179
7:00	149	64			19:00	69	145		
7:15	220	94			19:15	45	144		
7:30	319	111			19:30	46	103		
7:45	296	984	175	444	1428	19:45	48 208	115 507	715
8:00	165	138			20:00	47	85		
8:15	154	96			20:15	37	121		
8:30	154	96			20:30	48	101		
8:45	179	652	108	438	1090	20:45	40 172	114 421	593
9:00	147	105			21:00	22	82		
9:15	195	111			21:15	23	80		
9:30	152	101			21:30	19	72		
9:45	141	635	101	418	1053	21:45	15 79	38 272	351
10:00	137	91			22:00	17	43		
10:15	122	115			22:15	9	33		
10:30	106	93			22:30	11	24		
10:45	130	495	108	407	902	22:45	9 46	20 120	166
11:00	126	93			23:00	10	16		
11:15	140	100			23:15	4	19		
11:30	98	116			23:30	6	12		
11:45	143	507	129	438	945	23:45	8 28	15 62	90
Total Vol.	3748	2320			6068	4264	5988		

Split %	Daily Totals			
	NB	SB	EB	Combined
	8012	8308		16320
AM				PM
7:15	7:15	7:15		
1000	520	1518		
0.78	0.74	0.81		
				62.8%

Wednesday, December 11, 2019

CITY: Coto De Caza

PROJECT:

ADT4 Coto De Caza south of Planos Trabuco.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB		PM Period	NB	SB	EB	WB	
0:00	2	8				12:00	132	130			
0:15	8	8				12:15	136	126			
0:30	0	10				12:30	128	128			
0:45	0	10	2	28	38	12:45	122	518	152	536	1054
1:00	2	5				13:00	135	145			
1:15	4	5				13:15	136	120			
1:30	0	0				13:30	135	141			
1:45	0	6	3	13	19	13:45	143	549	119	525	1074
2:00	0	0				14:00	133	141			
2:15	3	0				14:15	134	108			
2:30	2	0				14:30	156	143			
2:45	3	8	0	0	8	14:45	160	583	173	565	1148
3:00	0	0				15:00	136	226			
3:15	0	0				15:15	157	180			
3:30	4	0				15:30	131	178			
3:45	8	12	2	2	14	15:45	163	587	205	709	1376
4:00	5	0				16:00	154	187			
4:15	6	0				16:15	160	170			
4:30	7	0				16:30	163	174			
4:45	13	31	4	4	35	16:45	150	627	198	729	1356
5:00	20	3				17:00	139	186			
5:15	19	6				17:15	160	179			
5:30	43	4				17:30	130	212			
5:45	38	120	10	23	143	17:45	138	567	173	750	1317
6:00	45	14				18:00	117	210			
6:15	58	19				18:15	106	171			
6:30	90	32				18:30	114	188			
6:45	115	308	42	107	415	18:45	111	448	179	748	1196
7:00	149	64				19:00	78	154			
7:15	226	96				19:15	45	141			
7:30	333	117				19:30	47	102			
7:45	307	1015	177	454	1469	19:45	44	214	118	515	729
8:00	177	133				20:00	54	88			
8:15	164	102				20:15	36	123			
8:30	164	94				20:30	46	102			
8:45	182	687	106	435	1122	20:45	41	177	113	426	603
9:00	153	109				21:00	25	84			
9:15	207	120				21:15	22	81			
9:30	164	95				21:30	20	73			
9:45	145	669	107	431	1100	21:45	15	82	36	274	356
10:00	136	86				22:00	16	43			
10:15	131	118				22:15	11	34			
10:30	110	95				22:30	11	23			
10:45	135	512	105	404	916	22:45	10	48	20	120	168
11:00	136	93				23:00	9	17			
11:15	141	102				23:15	6	18			
11:30	111	115				23:30	7	12			
11:45	146	534	131	441	975	23:45	8	30	15	62	92
Total Vol.	3912	2342			6254		4430	6039			10469

	Daily Totals			
	NB	SB	EB	Combined
	8342	8381		16723
AM				PM
Split %	62.6%	37.4%	37.4%	
Peak Hour	7:15	7:30	7:15	
Volume	1043	529	1566	
P.H.F.	0.78	0.75	0.81	
	42.3%	57.7%		62.6%
	15:45	15:00		15:00
	640	789		1376
	0.98	0.87		0.93

Wednesday, December 11, 2019

CITY: Coto De Caza

PROJECT:

ADT5 Plano Trabuco east of Fremont.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00		0	0		12:00			17	4
0:15		3	0		12:15			9	8
0:30		0	0		12:30			10	2
0:45		0	3	0 0 3	12:45		9 45	5 19	64
1:00		0	0		13:00			16	6
1:15		0	0		13:15			18	5
1:30		0	0		13:30			18	2
1:45		0	0	0 0	13:45		14 66	9 22	88
2:00		0	0		14:00			14	5
2:15		0	0		14:15			26	7
2:30		0	0		14:30			18	8
2:45		0	0	0 0	14:45		33 91	38 58	149
3:00		0	0		15:00			25	31
3:15		0	0		15:15			28	17
3:30		0	0		15:30			29	19
3:45		0	0	0 0	15:45		27 109	8 75	184
4:00		0	0		16:00			18	12
4:15		0	0		16:15			30	15
4:30		0	0		16:30			26	16
4:45		2	2	2 2 4	16:45		22 96	9 52	148
5:00		0	0		17:00			21	18
5:15		2	0		17:15			21	15
5:30		3	0		17:30			19	11
5:45		4	9	0 0 9	17:45		19 80	11 55	135
6:00		6	0		18:00			19	12
6:15		2	4		18:15			7	2
6:30		6	2		18:30			11	7
6:45		13	27	3 9 36	18:45		13 50	7 28	78
7:00		22	3		19:00			15	5
7:15		33	6		19:15			7	4
7:30		60	10		19:30			10	4
7:45		79	194	32 51 245	19:45		8 40	5 18	58
8:00		12	8		20:00			9	3
8:15		17	7		20:15			11	6
8:30		21	3		20:30			4	8
8:45		21	71	4 22 93	20:45		10 34	3 20	54
9:00		15	5		21:00			9	8
9:15		10	10		21:15			5	0
9:30		19	3		21:30			3	3
9:45		15	59	3 21 80	21:45		3 20	2 13	33
10:00		8	5		22:00			5	3
10:15		9	3		22:15			2	0
10:30		11	11		22:30			0	2
10:45		22	50	4 23 73	22:45		4 11	2 7	18
11:00		15	5		23:00			2	2
11:15		10	12		23:15			0	0
11:30		8	7		23:30			0	0
11:45		15	48	6 30 78	23:45		2 4	0 2	6
Total Vol.		463	158	621			646	369	1015

	Daily Totals			
	NB	SB	EB	WB
	1109	527	1636	

AM

Split %	74.6%	25.4%	38.0%
Peak Hour	7:00	7:30	7:00
Volume	194	57	245
P.H.F.	0.61	0.45	0.55

PM

63.6%	36.4%	62.0%
14:45	14:45	14:45
115	105	220
0.87	0.69	0.77

Wednesday, December 11, 2019

CITY: Coto De Caza

PROJECT:

ADT6 Plano Trabuco east of Via Pajaro.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00		0	0		12:00		23	5	
0:15		2	0		12:15		8	5	
0:30		0	0		12:30		12	4	
0:45		0	2	0 0 2	12:45		6 49	5 19	68
1:00		0	0		13:00		13	8	
1:15		0	0		13:15		20	4	
1:30		0	0		13:30		16	2	
1:45		0	0	0 0	13:45		18 67	7 21	88
2:00		0	0		14:00		10	4	
2:15		0	0		14:15		30	7	
2:30		0	0		14:30		22	11	
2:45		0	0	0 0	14:45		35 97	46 68	165
3:00		0	0		15:00		22	37	
3:15		0	0		15:15		29	19	
3:30		0	0		15:30		30	18	
3:45		0	0	0 0	15:45		33 114	11 85	199
4:00		0	0		16:00		26	15	
4:15		0	0		16:15		24	21	
4:30		0	0		16:30		31	13	
4:45		2	2	0 0 2	16:45		23 104	9 58	162
5:00		0	0		17:00		26	24	
5:15	3	0			17:15		22	17	
5:30	0	0			17:30		10	16	
5:45	3	6	0 0 6		17:45		21 79	13 70	149
6:00	6	0			18:00		15	15	
6:15	4	2			18:15		6	6	
6:30	5	5			18:30		9	9	
6:45	10	25	3 10 35		18:45		15 45	14 44	89
7:00	16	4			19:00		13	8	
7:15	32	3			19:15		11	4	
7:30	68	11			19:30		10	5	
7:45	77	193	38 56 249		19:45		14 48	7 24	72
8:00	8	8			20:00		18	3	
8:15	13	4			20:15		17	5	
8:30	15	6			20:30		8	8	
8:45	12	48	3 21 69		20:45		18 61	3 19	80
9:00	13	5			21:00		7	10	
9:15	12	7			21:15		6	4	
9:30	17	3			21:30		3	2	
9:45	11	53	3 18 71		21:45		0 16	3 19	35
10:00	6	7			22:00		5	4	
10:15	12	2			22:15		0	3	
10:30	9	6			22:30		0	2	
10:45	17	44	3 18 62		22:45		3 8	2 11	19
11:00	15	4			23:00		2	0	
11:15	16	11			23:15		0	0	
11:30	8	6			23:30		0	0	
11:45	14	53	5 26 79		23:45		2 4	0 0	4
Total Vol.		426	149	575			692	438	1130

	Daily Totals			
	NB	SB	EB	WB
	1118		587	1705

AM

Split %	74.1%	25.9%	33.7%
Peak Hour	7:00	7:30	7:00
Volume	193	61	249
P.H.F.	0.63	0.40	0.54

PM	61.2%	38.8%	66.3%
	15:15	14:45	14:45
	118	120	236

Wednesday, December 11, 2019

CITY: Coto De Caza

PROJECT:

ADT7 Coto De Caza south of Summit Ascent.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB		PM Period	NB	SB	EB	WB	
0:00	7	4				12:00	63	70			
0:15	3	2				12:15	89	70			
0:30	3	3				12:30	67	85			
0:45	3	16	3	12	28	12:45	86	305	82	307	612
1:00	2	2				13:00	84	91			
1:15	5	0				13:15	62	108			
1:30	0	2				13:30	55	73			
1:45	3	10	0	4	14	13:45	51	252	67	339	591
2:00	2	3				14:00	64	87			
2:15	0	0				14:15	82	108			
2:30	0	2				14:30	80	86			
2:45	0	2	0	5	7	14:45	105	331	82	363	694
3:00	0	0				15:00	122	107			
3:15	0	0				15:15	130	98			
3:30	0	0				15:30	133	100			
3:45	2	2	0	0	2	15:45	132	517	110	415	932
4:00	0	8				16:00	93	91			
4:15	3	6				16:15	136	78			
4:30	9	9				16:30	90	89			
4:45	6	18	10	33	51	16:45	95	414	96	354	768
5:00	0	17				17:00	85	80			
5:15	5	20				17:15	97	96			
5:30	6	16				17:30	106	71			
5:45	6	17	29	82	99	17:45	104	392	71	318	710
6:00	18	33				18:00	102	62			
6:15	9	44				18:15	85	57			
6:30	26	47				18:30	99	53			
6:45	36	89	60	184	273	18:45	89	375	61	233	608
7:00	41	110				19:00	83	40			
7:15	78	144				19:15	101	45			
7:30	124	145				19:30	57	39			
7:45	109	352	121	520	872	19:45	48	289	28	152	441
8:00	85	154				20:00	59	32			
8:15	100	125				20:15	60	18			
8:30	88	105				20:30	61	32			
8:45	76	349	82	466	815	20:45	62	242	39	121	363
9:00	65	105				21:00	59	35			
9:15	53	139				21:15	68	25			
9:30	68	102				21:30	40	17			
9:45	65	251	85	431	682	21:45	37	204	13	90	294
10:00	53	80				22:00	43	11			
10:15	62	84				22:15	27	11			
10:30	62	83				22:30	17	6			
10:45	76	253	73	320	573	22:45	13	100	11	39	139
11:00	80	76				23:00	10	2			
11:15	83	88				23:15	14	5			
11:30	71	67				23:30	2	5			
11:45	61	295	83	314	609	23:45	12	38	2	14	52
Total Vol.	1654	2371			4025		3459	2745			6204

	Daily Totals			
	NB	SB	EB	WB
	5113	5116		10229
AM				PM
Split %	41.1%	58.9%	39.3%	
Peak Hour	7:30	7:15	7:30	
Volume	418	564	963	
P.H.F.	0.84	0.92	0.89	
	55.8%	44.2%		60.7%
	15:00	15:00		15:00
	517	415		932
	0.97	0.94		0.96

LEGACY AT COTO TRAFFIC STUDY

Appendix B ICU Calculation worksheets

Appendix B ICU CALCULATION WORKSHEETS

JUNE 2020



LEGACY AT COTO TRAFFIC STUDY

Appendix B ICU Calculation worksheets

INTERSECTION CAPACITY UTILIZATION

Peak hour intersection volume/capacity ratios are calculated by means of intersection capacity utilization (ICU) values.

The procedure is based on the critical movement methodology and shows the amount of capacity utilized by each critical move. A capacity of 1,700 vehicles per hour (VPH) per lane is assumed together with a 0.05 clearance interval. A "de-facto" right-turn lane is used in the ICU calculation for cases where a curb lane is wide enough to separately serve both through and right-turn traffic (i.e., with a width of 19 feet from curb to outside of through-lane with parking prohibited during peak periods). Such lanes are treated the same as striped right-turn lanes during the ICU calculations, but they are denoted on the ICU calculation worksheets using the letter "d" in place of a numerical entry for right-turn lanes.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made.

Example for Northbound Right

1. Right-Turn-On-Green (RTOG)

If NBT is critical move, then:

$$\text{RTOG} = \text{V/C (NBT)}$$

Otherwise,

$$\text{RTOG} = \text{V/C (NBL)} + \text{V/C (SBT)} - \text{V/C (SBL)}$$

2. Right-Turn-On-Red (RTOR)

If WBL is critical move, then:

$$\text{RTOR} = \text{V/C (WBL)}$$

Otherwise,

$$\text{RTOR} = \text{V/C (EBL)} + \text{V/C (WBT)} - \text{V/C (EBT)}$$

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:



LEGACY AT COTO TRAFFIC STUDY

Appendix B ICU Calculation worksheets

$$RTOG = RTOG + V/C (\text{WBL})$$

$$RTOR = RTOR - V/C (\text{WBL})$$

4. Total Right-Turn Capacity (RTC) Availability for NBR

$$RTC = RTOG + \text{factor} \times RTOR$$

Where factor = RTOR saturation flow factor (75%)

Right-turn adjustment is then as follows:

$$\text{Additional ICU} = V/C (\text{NBR}) - RTC$$

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C; therefore, the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

Shared Lane V/C Methodology

For intersection approaches where shared usage of a lane is permitted by more than one turn movement (e.g., left/through, through/right, left/through/right), the individual turn volumes are evaluated to determine whether dedication of the shared lane is warranted to any one given turn movement. The following example demonstrates how this evaluation is carried out:

Example for Shared Left/Through Lane

1. Average Lane Volume (ALV)

$$ALV = \frac{\text{Left-Turn Volume} + \text{Through Volume}}{\text{Total Left} + \text{Through Approach Lanes (including shared lane)}}$$

2. ALV for Each Approach

$$ALV (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Lanes (including shared lane)}}$$

$$ALV (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Lanes (including shared lane)}}$$



LEGACY AT COTO TRAFFIC STUDY

Appendix B ICU Calculation worksheets

3. Lane Dedication is Warranted

If ALV (Left) is greater than ALV, then full dedication of the shared lane to the left-turn approach is warranted. Left-turn and through V/C ratios for this case are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (including shared lane)}}$$

$$V/C (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (excluding shared lane)}}$$

Similarly, if ALV (Through) is greater than ALV then full dedication to the through approach is warranted, and left-turn and through V/C ratios are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (excluding shared lane)}}$$

$$V/C (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (including shared lane)}}$$

4. Lane Dedication is not Warranted

If ALV (Left) and ALV (Through) are both less than ALV, the left/through lane is assumed to be truly shared and each left, left/through or through approach lane carries an evenly distributed volume of traffic equal to ALV. A combined left/through V/C ratio is calculated as follows:

$$V/C (\text{Left/Through}) = \frac{\text{Left-Turn Volume} + \text{Through Volume}}{\text{Total Left + Through Approach Capacity (including shared lane)}}$$

This V/C (Left/Through) ratio is assigned as the V/C (Through) ratio for the critical movement analysis and ICU summary listing.

If split phasing has not been designated for this approach, the relative proportion of V/C (Through) that is attributed to the left-turn volume is estimated as follows:

If approach has more than one left-turn lane (including shared lane), then:

$$V/C (\text{Left}) = V/C (\text{Through})$$

If approach has only one left-turn lane (shared lane), then:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Single Approach Lane Capacity}}$$



LEGACY AT COTO TRAFFIC STUDY

Appendix B ICU Calculation worksheets

If this left-turn movement is determined to be a critical movement, the V/C (Left) value is posted in brackets on the ICU summary printout.

These same steps are carried out for shared through/right lanes. If full dedication of a shared through/right lane to the right-turn movement is warranted, the right-turn V/C value calculated in step three is checked against the RTOR and RTOG capacity availability if the option to include right-turns in the V/C ratio calculations is selected. If the V/C value that is determined using the shared lane methodology described here is reduced due to RTOR and RTOG capacity availability, the V/C value for the through/right lanes is posted in brackets.

When an approach contains more than one shared lane (e.g., left/through and through/right), steps one and two listed above are carried out for the three turn movements combined. Step four is carried out if dedication is not warranted for either of the shared lanes. If dedication of one or the shared lanes is warranted to one movement or another, step three is carried out for the two movements involved, and then steps one through four are repeated for the two movements involved in the other shared lane.

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1. Coto de Caza Dr & Vista Del Verde

Existing					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	8 .00	2 .00	
NBT	2	3400	601 .18*	357 .11*	
NBR	0	0	18	24	
SBL	1	1700	204 .12*	324 .19*	
SBT	2	3400	310 .09	410 .12	
SBR	0	0	3	0	
EBL	0	0	10 {.01}*	1	
EBT	1	1700	2 .01	1 .00	
EBR	0	0	8	4	
WBL	0	0	32	28	
WBT	1	1700	4 .26*	2 .16*	
WBR	0	0	404	243	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION		.62	.51		

Existing plus Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	8 .00	2 .00	
NBT	2	3400	601 .18*	357 .11*	
NBR	0	0	19	26	
SBL	1	1700	211 .12*	338 .20*	
SBT	2	3400	310 .09	410 .12	
SBR	0	0	3	0	
EBL	0	0	10 {.01}*	1	
EBT	1	1700	2 .01	1 .00	
EBR	0	0	8	4	
WBL	0	0	33	29	
WBT	1	1700	4 .27*	2 .17*	
WBR	0	0	416	254	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION		.63	.53		

Cumulative No-Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	8 .00	2 .00	
NBT	2	3400	609 .19*	362 .12*	
NBR	0	0	30	42	
SBL	1	1700	216 .13*	342 .20*	
SBT	2	3400	312 .09	418 .12	
SBR	0	0	3	0	
EBL	0	0	10 {.01}*	1	
EBT	1	1700	2 .01	1 .00	
EBR	0	0	8	4	
WBL	0	0	43	45	
WBT	1	1700	4 .27*	2 .18*	
WBR	0	0	415	260	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION		.65	.55		

Cumulative with Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	8 .00	2 .00	
NBT	2	3400	609 .19*	362 .12*	
NBR	0	0	31	44	
SBL	1	1700	223 .13*	356 .21*	
SBT	2	3400	312 .09	418 .12	
SBR	0	0	3	0	
EBL	0	0	10 {.01}*	1	
EBT	1	1700	2 .01	1 .00	
EBR	0	0	8	4	
WBL	0	0	44	46	
WBT	1	1700	4 .28*	2 .19*	
WBR	0	0	427	271	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION		.66	.57		

2. Coto de Caza Dr & Trigo Trail

Existing					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	1015	.30*	570 .17
NBR	0	0	7		8
SBL	0	0	0		0
SBT	2	3400	525	.15	778 .23*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	0		0
WBT	1	1700	0	.02*	0 .01*
WBR	0	0	32		20
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.37		.29

Existing plus Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	1027	.30*	581 .17
NBR	0	0	7		8
SBL	0	0	0		0
SBT	2	3400	532	.16	792 .23*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	0		0
WBT	1	1700	0	.02*	0 .01*
WBR	0	0	32		20
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.37		.29

Cumulative No-Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	1034	.31*	592 .18
NBR	0	0	7		8
SBL	0	0	0		0
SBT	2	3400	559	.16	804 .24*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	0		0
WBT	1	1700	0	.02*	0 .01*
WBR	0	0	32		20
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.38		.30

Cumulative with Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	1046	.31*	603 .18
NBR	0	0	7		8
SBL	0	0	0		0
SBT	2	3400	546	.16	818 .24*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	0		0
WBT	1	1700	0	.02*	0 .01*
WBR	0	0	32		20
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.38		.30

3. Coto de Caza Dr & Plano Trabuco Rd

Existing					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	895	.31*	524 .17
NBR	0	0	152		66
SBL	1	1700	42	.02*	39 .02
SBT	2	3400	481	.14	732 .22*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	1	1700	45	.03	46 .03*
WBT	1	1700	0	.03*	0 .02
WBR	0	0	49		32
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.41		.30

Existing plus Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	907	.31*	535 .18
NBR	0	0	152		66
SBL	1	1700	42	.02*	39 .02
SBT	2	3400	488	.14	746 .22*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	1	1700	45	.03	46 .03*
WBT	1	1700	0	.03*	0 .02
WBR	0	0	49		32
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.41		.30

Cumulative No-Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	914	.31*	546 .18
NBR	0	0	152		66
SBL	1	1700	42	.02*	39 .02
SBT	2	3400	495	.15	758 .22*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	1	1700	45	.03	46 .03*
WBT	1	1700	0	.03*	0 .02
WBR	0	0	49		32
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.41		.30

Cumulative with Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	926	.32*	557 .18
NBR	0	0	152		66
SBL	1	1700	42	.02*	39 .02
SBT	2	3400	502	.15	772 .23*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	1	1700	45	.03	46 .03*
WBT	1	1700	0	.03*	0 .02
WBR	0	0	49		32
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.42		.31

4. Via Pajaro & Plano Trabuco Rd

Existing					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	10		9
NBT	1	1700	0	.02*	0
NBR	0	0	25		25
SBL	0	0	0		0
SBT	0	0	0		0
SBR	0	0	0		0
EBL	0	0	0		0
EBT	1	1700	170	.11*	86
EBR	0	0	23		13
WBL	0	0	10	{.01}* [*]	18
WBT	1	1700	45	.03	49
WBR	0	0	0		0
Clearance Interval			.05*		.05*

TOTAL CAPACITY UTILIZATION .19 .14

Existing plus Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	10		9
NBT	1	1700	0	.02*	0
NBR	0	0	26		26
SBL	0	0	0		0
SBT	0	0	0		0
SBR	0	0	0		0
EBL	0	0	0		0
EBT	1	1700	170	.11*	86
EBR	0	0	23		13
WBL	0	0	10	{.01}* [*]	19
WBT	1	1700	45	.03	49
WBR	0	0	0		0
Clearance Interval			.05*		.05*

TOTAL CAPACITY UTILIZATION .19 .14

Cumulative No-Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	10		9
NBT	1	1700	0	.02*	0
NBR	0	0	25		25
SBL	0	0	0		0
SBT	0	0	0		0
SBR	0	0	0		0
EBL	0	0	0		0
EBT	1	1700	170	.11*	86
EBR	0	0	23		13
WBL	0	0	10	{.01}* [*]	18
WBT	1	1700	45	.03	49
WBR	0	0	0		0
Clearance Interval			.05*		.05*

TOTAL CAPACITY UTILIZATION .19 .14

Cumulative with Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	10		9
NBT	1	1700	0	.02*	0
NBR	0	0	26		26
SBL	0	0	0		0
SBT	0	0	0		0
SBR	0	0	0		0
EBL	0	0	0		0
EBT	1	1700	170	.11*	86
EBR	0	0	23		13
WBL	0	0	10	{.01}* [*]	19
WBT	1	1700	45	.03	49
WBR	0	0	0		0
Clearance Interval			.05*		.05*

TOTAL CAPACITY UTILIZATION .19 .14

5. Via Pajaro & Via Venado

Existing					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	0	0	0	0	
NBT	1	1700	18 .02*	28 .03*	
NBR	0	0	20	24	
SBL	0	0	8	14 {.01}*	
SBT	1	1700	14 .01	15 .02	
SBR	0	0	0	0	
EBL	0	0	0	0	
EBT	0	0	0	0	
EBR	0	0	0	0	
WBL	0	0	14	13	
WBT	1	1700	0 .02*	0 .02*	
WBR	0	0	24	16	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.09	.11	

Existing plus Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	0	0	0	0	
NBT	1	1700	18 .02*	28 .03*	
NBR	0	0	20	24	
SBL	0	0	8	14 {.01}*	
SBT	1	1700	14 .01	15 .02	
SBR	0	0	0	0	
EBL	0	0	0	0	
EBT	0	0	0	0	
EBR	0	0	0	0	
WBL	0	0	14	13	
WBT	1	1700	0 .02*	0 .02*	
WBR	0	0	25	16	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.09	.11	

Cumulative No-Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	0	0	0	0	
NBT	1	1700	18 .02*	28 .03*	
NBR	0	0	20	24	
SBL	0	0	8	14 {.01}*	
SBT	1	1700	14 .01	15 .02	
SBR	0	0	0	0	
EBL	0	0	0	0	
EBT	0	0	0	0	
EBR	0	0	0	0	
WBL	0	0	14	13	
WBT	1	1700	0 .02*	0 .02*	
WBR	0	0	24	16	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.09	.11	

Cumulative with Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	0	0	0	0	
NBT	1	1700	18 .02*	28 .03*	
NBR	0	0	20	24	
SBL	0	0	8	14 {.01}*	
SBT	1	1700	14 .01	15 .02	
SBR	0	0	0	0	
EBL	0	0	0	0	
EBT	0	0	0	0	
EBR	0	0	0	0	
WBL	0	0	14	13	
WBT	1	1700	0 .02*	0 .02*	
WBR	0	0	25	16	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.09	.11	

6. Vista Del Verde & Via Pajaro

Existing					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	1	1700	223	.14*	119 .08
NBR	0	0	17		21
SBL	0	0	109	{.06}* 109	163
SBT	1	1700	103	.12	165 .19*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	24		27
WBT	1	1700	0	.12*	0 .10*
WBR	0	0	180		136
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION		.37	.34		

Existing plus Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	1	1700	223	.14*	119 .08
NBR	0	0	17		21
SBL	0	0	117	{.07}* 117	178
SBT	1	1700	103	.13	165 .20*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	24		27
WBT	1	1700	0	.13*	0 .10*
WBR	0	0	193		148
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION		.39	.35		

Cumulative No-Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	1	1700	223	.14*	119 .08
NBR	0	0	17		21
SBL	0	0	109	{.06}* 109	163
SBT	1	1700	103	.12	165 .19*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	24		27
WBT	1	1700	0	.12*	0 .10*
WBR	0	0	180		136
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION		.37	.34		

Cumulative with Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	1	1700	223	.14*	119 .08
NBR	0	0	17		21
SBL	0	0	117	{.07}* 117	178
SBT	1	1700	103	.13	165 .20*
SBR	0	0	0		0
EBL	0	0	0		0
EBT	0	0	0		0
EBR	0	0	0		0
WBL	0	0	24		27
WBT	1	1700	0	.13*	0 .10*
WBR	0	0	193		148
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION		.39	.35		