

Laguna Niguel

Gateway Specific Plan

5-Year Traffic Review (2021)

April 2022

Prepared for:



THE CITY OF LAGUNA NIGUEL
30111 Crown Valley Parkway
Laguna Niguel, CA 92677

Prepared by:



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Irvine, CA 92618
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1.0 EXECUTIVE SUMMARY

Per the City adopted 2011 Gateway Specific Plan (GSP), the City will evaluate the GSP area traffic conditions at least once every 5 years. In 2016 a 5-year traffic review was conducted. This report provides the next 5-year traffic review which began in 2021. In addition to updating the model conditions to year 2021, the update considers the approved development projects (built, under construction and entitled) in the GSP area that have occurred since the previous 2016 traffic review. Consistent with the regional traffic model, this report uses Year 2045 as the long-range horizon year.

The intent of the periodic review of the GSP traffic conditions is to allow for the review of background data and any shifts in the GSP land uses between Planning Districts to determine if regional and local growth is occurring within the guidelines outlined in the 2011 GSP; and if the current transportation infrastructure can accommodate the remaining GSP land uses.

To evaluate traffic operations, the following twelve (11) intersections within the Gateway Area were included in weekday AM and PM peak hour level of service (LOS) analysis:

1. I-5 Northbound Ramps / Crown Valley Parkway;
2. I-5 Southbound Ramps / Crown Valley Parkway;
3. Forbes Road / Crown Valley Parkway;
4. Cabot Road / Crown Valley Parkway;
5. Crown Valley Parkway / Greenfield Drive;
6. Greenfield Drive / Rancho Niguel Road;
7. Cabot Road / Paseo De Colinas;
8. Cabot Road / Rapid Falls Road;
9. Cabot Road / Costco Entrance;
10. Forbes Road / Cape Drive; and
11. Forbes Road / Getty Drive.

In addition, daily roadway segment capacity analyses were also conducted for five (5) segments along Crown Valley Parkway and Cabot Road. These roadway segments include:

1. Crown Valley Parkway between Greenfield Drive and Cabot Road
2. Crown Valley Parkway between Cabot Road and Forbes Road
3. Crown Valley Parkway between Forbes Road and I-5 SB Ramps
4. Cabot Road between Cabot Road and Rapid Falls Road
5. Cabot Road between Costco Entrance and Skye Driveway

The study intersections and roadway segments were analyzed for the following scenarios:



- Existing Conditions
- Forecast Year 2045 No Project Conditions
- Forecast Year 2045 With Project Conditions

1.1 SUMMARY OF ANALYSIS RESULTS

Table E-1 and **Table E-2** summarizes the results of the intersection and roadway segment level of service analysis based on the City of Laguna Niguel thresholds of significance for analyzing transportation deficiencies.

Table E-1

Summary of Transportation Deficiencies at Study Intersections

Intersection			Forecast Year 2045 No Project	Forecast Year 2045 With Project
1	I-5 Northbound Ramps	Crown Valley Parkway	No Deficiencies	No Deficiencies
2	I-5 Southbound Ramps	Crown Valley Parkway	No Deficiencies	No Deficiencies
3	Forbes Road	Crown Valley Parkway	No Deficiencies	No Deficiencies
4	Cabot Road	Crown Valley Parkway	No Deficiencies	Deficient
5	Crown Valley Parkway	Greenfield Drive	No Deficiencies	No Deficiencies
6	Greenfield Drive	Rancho Niguel Road	No Deficiencies	No Deficiencies
7	Cabot Road	Paseo De Colinas	No Deficiencies	No Deficiencies
8	Cabot Road	Rapid Falls Road	No Deficiencies	No Deficiencies
9	Cabot Road	Costco Entrance	No Deficiencies	No Deficiencies
10	Forbes Road	Cape Drive	No Deficiencies	No Deficiencies
11	Forbes Road	Getty Drive	No Deficiencies	No Deficiencies

Table E-2

Summary of Transportation Deficiencies at Roadway Segments

Roadway	Segment	Forecast Year 2045 No Project	Forecast Year 2045 With Project
Crown Valley Parkway	I-5 SB Ramps to Forbes Road	No Deficiencies	No Deficiencies
Crown Valley Parkway	Cabot Road to Forbes Road	No Deficiencies	No Deficiencies
Crown Valley Parkway	Greenfield Drive to Cabot Road	No Deficiencies	No Deficiencies
Cabot Road	Costco Entrance to Skye Driveway	No Deficiencies	No Deficiencies
Cabot Road	Rapid Falls Road to Cabot Road	No Deficiencies	No Deficiencies

Existing Conditions

The study intersections are currently operating at an acceptable LOS during the AM and PM peak hours for *Existing* conditions. The roadway segments are currently operating at acceptable LOS for *Existing* conditions.



Forecast Year 2045 No Project Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Forecast Year 2045 No Project*. The roadway segments are projected to operate at acceptable LOS for *Forecast Year 2045 No Project*.

Forecast Year 2045 With Project Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Forecast Year 2045 With Project* conditions with the exception of the following intersections:

- #4 – Cabot Road / Crown Valley Parkway (LOS E PM Peak Hour)

The roadway segments are projected to operate at acceptable LOS for *Forecast Year 2045 With Project*.

1.2 SUMMARY OF DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

The following improvements are recommended for Future Year 2045 With Project.

Forecast Year 2045 With Project Recommended Improvement: #4 Cabot Road / Crown Valley Parkway – Improve and widen intersection based on the following lane configurations. Note, these are consistent with the recommendations presented in the 2011 GSP.

- Crown Valley Parkway Eastbound – Modify the eastbound right-turn lane to consist of a shared through/right-turn lane
- Crown Valley Parkway Westbound – Add a westbound shared through/right-turn lane; maintain existing right-turn lane. An additional westbound receiving lane is needed departing the intersection for westbound travel
- Cabot Road Northbound – Modify the two northbound through lanes to consist of one through and one shared through/right-turn lane
- Cabot Road Southbound – Add a dedicated southbound right-turn lane; maintain existing shared through/right-turn lane

1.3 SUMMARY OF GATEWAY SPECIFIC PLAN LAND USES

The GSP land use capacities were compared to the existing GSP land uses. The remaining buildout of the GSP land uses are summarized below in **Table E-3**.



Table E-3
Remaining GSP Development Land Use Capacity

Planning District		Residential ¹	Retail ²	Office ²	Hotel ¹	Bus Park ²	Auto Sales ²
A	Galivan Basin						
B	Camino Capistrano Business Park					108,172	
C	Hillside Office-Residential	220		305,460	50		
D	Cabot Office-Residential						
E	Mixed-Use Village	359	26,549	94,129	50		
F	Cabot South						
G	Crown Valley Retail Commercial - Residential	142	54,979		50		
H	Transit Oriented Mixed-Use Corridor	663	51,770	220,702	50		
I	Camino Capistrano Commercial Service		12,400	6,062			9,093
J	Star Drive						15,883
K	South Camino Capistrano		44,615		117		
Total		1,384	190,313	626,353	317	108,172	24,976

1: Du = Dwelling Units

2: SF = Square feet

1.4 SUMMARY OF DEVELOPMENT ENTITELMENT MANAGEMENT SYSTEM

The Development Entitlement Management System (DEMS) establishes the parameters under which an exchange of land uses may be permitted within Planning Districts C, D, E, and H of the GSP. The DEMS was created to provide flexibility in allocation of land uses within specific districts. Based on the land use projects approved and constructed to date, it is not recommended that any changes to the DEMS limits be implemented at this time

2.0 INTRODUCTION

The City of Laguna Niguel adopted the Gateway Specific Plan (GSP) in December 2011. The GSP updated standards and guidelines with the intent of transforming the Laguna Niguel Gateway Area into a transit and pedestrian-oriented mixed-use urban village.

In order to achieve the vision for the Gateway Area, a variety of techniques and strategies were identified to implement the GSP. An implementation schedule was developed and is listed in Table 6-5 of the 2011 GSP. As a part of this schedule, at least once every 5 years, the Community Development/Public Works Department shall review and evaluate traffic conditions within the Gateway Area. This review would include Crown Valley Parkway, Forbes Road, Cabot Road, the Crown Valley Parkway / Interstate 5 interchange, and any other roadway deemed of relevance by the City.

2.1 PURPOSE

Per the City adopted 2011 Gateway Specific Plan (GSP), the City will evaluate the GSP area traffic conditions at least once every 5 years. In 2016 a 5-year traffic review was conducted. This report provides the next 5-year traffic review which began in 2021. In addition to updating the model conditions to year 2021, the update considers the approved development projects (built, under construction and entitled) in the GSP area that have occurred since the previous 2016 traffic review. Consistent with the regional traffic model, this report uses Year 2045 as the long-range horizon year.

The intent of the periodic review of the GSP traffic conditions is to allow for the review of background data and any shifts in the GSP land uses between Planning Districts to determine if regional and local growth is occurring within the guidelines outlined in the 2011 GSP; and if the current transportation infrastructure can accommodate the remaining GSP land uses.

2.2 REGIONAL ACCESS

Regional access to the Gateway Area is available from interstate 5 (I-5) via the Crown Valley Parkway exit and the Avery Parkway exit. The exit on Crown Valley Parkway provides access to Crown Valley Parkway, Forbes Road, and Cabot Road. The exit on Avery Parkway provides access to Camino Capistrano and Paseo De Colinas. Additional access to the Gateway Area is available from State Route 73 (SR-73) via the Greenfield Drive exit which provides access to Greenfield Drive and Crown Valley Parkway.

2.3 STUDY AREA

To evaluate traffic operations, the following twelve (11) intersections within the Gateway Area were included in weekday AM and PM peak hour level of service (LOS) analysis:



1. I-5 Northbound Ramps / Crown Valley Parkway;
2. I-5 Southbound Ramps / Crown Valley Parkway;
3. Forbes Road / Crown Valley Parkway;
4. Cabot Road / Crown Valley Parkway;
5. Crown Valley Parkway / Greenfield Drive;
6. Greenfield Drive / Rancho Niguel Road;
7. Cabot Road / Paseo De Colinas;
8. Cabot Road / Rapid Falls Road;
9. Cabot Road / Costco Entrance;
10. Forbes Road / Cape Drive; and
11. Forbes Road / Getty Drive.

It should be noted, the 2011 GSP included analysis of 21 intersections. For this 5-year traffic review, the above 11 intersections were selected in coordination with City staff.

In addition, daily roadway segment capacity analyses were also conducted for five (5) segments along Crown Valley Parkway and Cabot Road. These roadway segments include:

1. Crown Valley Parkway between Greenfield Drive and Cabot Road
2. Crown Valley Parkway between Cabot Road and Forbes Road
3. Crown Valley Parkway between Forbes Road and I-5 SB Ramps
4. Cabot Road between Cabot Road and Rapid Falls Road
5. Cabot Road between Costco Entrance and Skye Driveway

Exhibit 1 shows the intersections and roadway segments evaluated for the following study scenarios:

- Existing Conditions
- Forecast Year 2045 No Project (FYNP) Conditions
- Forecast Year 2045 With Project (FYWP) Conditions

2.4 PLANNED NETWORK IMPROVEMENTS

Various roadway projects have been planned or completed to improve traffic operations in the immediate area, as well as for the surrounding region. Improvement projects that will directly affect access, circulation, and traffic operations in the study area include the following:

The Orange County Transportation Authority (OCTA) studied the I-5 corridor as part of the South County Major Investment Study. The South County Major Investment Study developed a program for the expansion and enhancement of transportation facilities to improve circulation and mobility for the region. The program



contained a multi-modal approach to reduce auto use, improve roadway efficiency, increase transit capacity and efficiency, and enhance the attractiveness of active modes (including bicycle travel). Caltrans and OCTA are currently widening the I-5 between El Toro Road and SR-73 to provide additional mainline capacity.

The I-5 improvements include the addition of one general purpose through lane on each direction of I-5 north of SR-73, auxiliary lanes where needed, and interchange modifications. Interchange improvements are included at Avery Parkway and La Paz Road. The I-5 mainline improvements and interchange modifications are currently under construction. OCTA and Caltrans anticipate the I-5 improvements will be completed by the year 2025.

2.5 ANALYSIS METHODOLOGIES

Analysis of potential transportation related deficiencies of the GSP follows the methodologies and processes outlined by the City of Laguna Niguel for the intersections and roadway segments.

2.5.1 INTERSECTIONS

Intersection operating conditions within the study area were analyzed using two methodologies. The Intersection Capacity Utilization (ICU) methodology and the Highway Capacity Manual (HCM) methodology. The ICU methodology was utilized for all Laguna Niguel signalized intersections while the HCM methodology was utilized at Caltrans managed intersections and for stop-controlled intersections.

The ICU methodology provides a comparison of the theoretical hourly vehicular capacity of an intersection to the number of vehicles passing through that intersection during the peak hour. The results of the evaluation are reported in terms of a volume-to-capacity (v/c) ratio, which corresponds to a Level of Service (LOS). Level of Service is represented by letter grades A through F, with LOS A representing free-flow conditions, and LOS F representing congested, over-capacity conditions.

The Highway Capacity Manual (HCM) delay-based methodology is based on the intersection average control delay for all movements at the intersection during the peak hour. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level of Service is represented by letter grades A through F, with LOS A representing minimal delay conditions, and LOS F representing longer delay conditions.

2.5.2 ROADWAY SEGMENTS

Roadway segments were analyzed by calculating the volume-to-capacity (v/c) ratio for the selected segments based on the daily volume of traffic on the roadway and the City's General Plan daily traffic capacity for the corresponding facility size, configuration, and type. The v/c ratio was then categorized based on the City's LOS threshold standards.



2.5.3 LEVEL OF SERVICE (LOS)

Level of Service (LOS) is commonly used to describe the quality of flow on roadways and at intersections using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions). The definitions for LOS for interruption of traffic flow differ depending on the type of traffic control (traffic signal, unsignalized intersection with side street stops, unsignalized intersection with all-way stops). The following methodologies were utilized in this study.

Table 1 identifies each Level of Service category and the corresponding v/c ratios for ICU methodology.

Table 1
ICU – LOS & Volume-to-Capacity Ratio

Level of Service (LOS)	Volume-to-Capacity Ratio
A	< 0.60
B	0.61 – 0.70
C	0.71 – 0.80
D	0.81 – 0.90
E	0.91 – 1.00
F	> 1.00

Source: City of Laguna Niguel, Transportation Guidelines (November, 2020).
LOS = Level of Service, ICU = Intersection Capacity Utilization.

Table 2 describes the general characteristics of traffic flow and accompanying delay ranges for HCM methodology.

Table 2
HCM – LOS & Delay Ranges

Level of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long-standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual*, HCM6 Edition (Washington D.C., 2016).

Table 3 presents the daily roadway capacity for each roadway classification per the 2011 City of Laguna Niguel GSP.



Table 3
Roadway Capacities

Roadway Classification	LOS E Daily Capacity (two-way)
8 Lanes Divided	75,000
7 Lanes Divided	65,700
6 Lanes Divided	56,300
4 Lanes Divided	37,500
4 Lanes Undivided	25,000
2 Lanes Undivided	12,500

Source: City General Plan Circulation Element 1992, and OCTA MPAH Guidelines, 2017.

2.6 PERFORMANCE CRITERIA

2.6.1 CITY OF LAGUNA NIGUEL

Acceptable performance criteria for local transportation facilities are established in the Laguna Niguel General Plan Circulation Element's LOS policies. A significant impact would occur at a study intersection when project-related traffic causes:

- A signalized intersection to degrade from an acceptable LOS D or better to LOS E or LOS F; or
- The volume to capacity (v/c) ratio to increase by more than 0.01 at a signalized intersection operating at LOS E or LOS F.

If an intersection is operating at LOS E or worse and a significant impact is anticipated (v/c ratio increase of more than 0.01), an improvement is needed to improve intersection operations equal to the project-generated impact on the operation of the intersection. If an impact drops from LOS D or better to LOS E or F, an improvement is needed to achieve acceptable threshold level (LOS D) as a part of the project approval. No improvement is required for intersections operating at or above the acceptable threshold.

The City guidelines require a traffic study include a table identifying whether the project has a significant impact at any of the study area intersections or roadway segments. Improvement(s) to pre-project conditions or the project would need to participate on a "fair-share" basis to the appropriate road fee programs (if any). Fair share shall be calculated by determining the project's percent contribution to an intersection's critical movement(s) attributable to the significant impact at the intersection, and applying that percentage to the cost of planned improvement necessary to mitigate the impacts to the intersection.

2.6.2 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State Highway

facilities, although Caltrans acknowledges that this may not always be feasible. If an existing State Highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for acceptable LOS on all freeways, roadway segments and intersections is LOS “D.”

2.6.3 CONGESTION MANAGEMENT PLAN (CMP)

The passage of Proposition 111 in June 1990 increased the gas tax for the purpose of funding transportation-related improvements statewide. In order to be eligible for the revenues associated with Proposition 111, the Congestion Management Program (CMP) legislation (originally AB 471, amended by AB 1791) required California’s urbanized areas – areas with populations of 50,000 or more – to adopt a CMP.

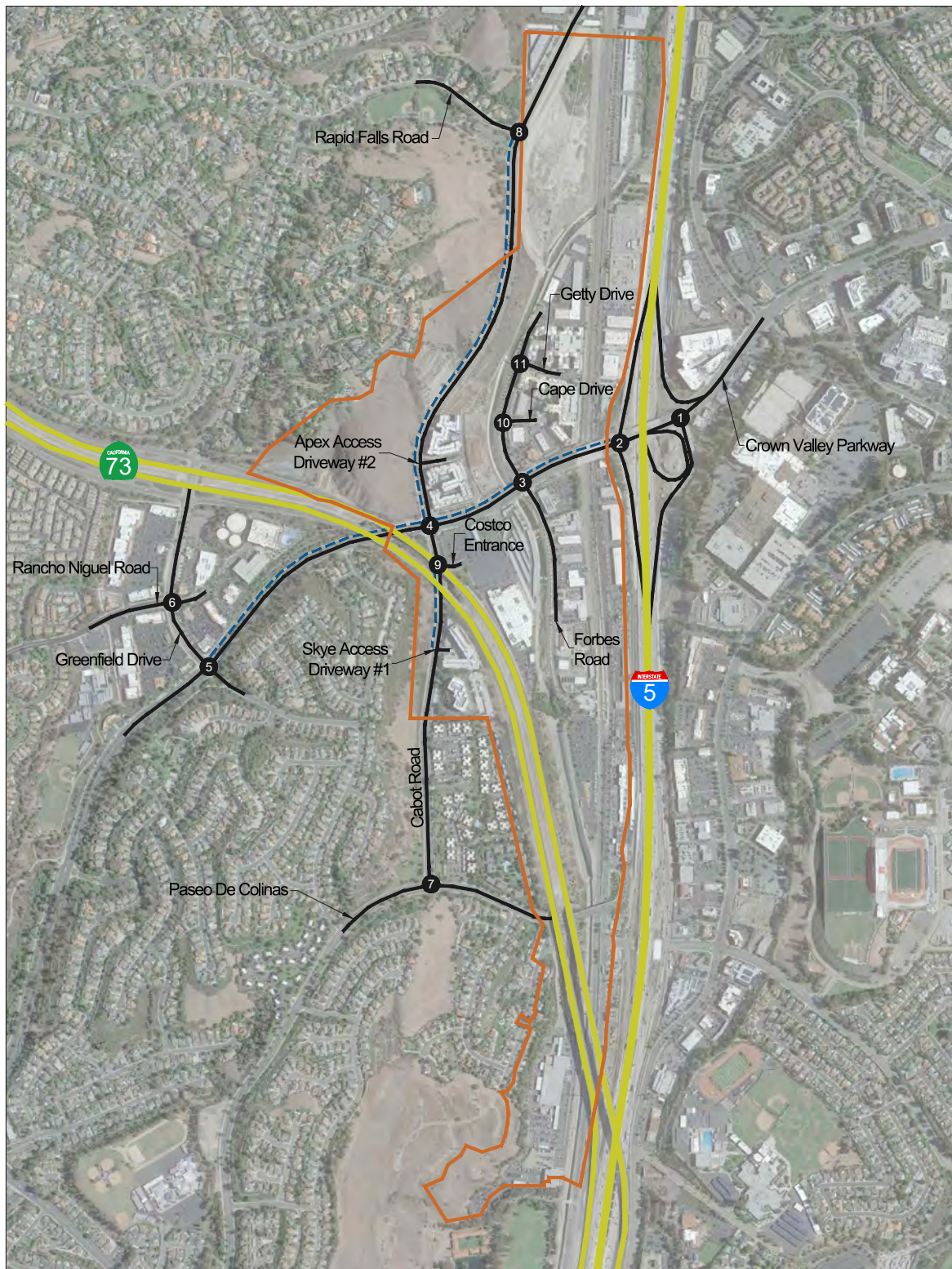
The following year, Orange County’s local governments designated the Orange County Transportation Authority (OCTA) as the Congestion Management Agency (CMA) for the County. As a result, OCTA is responsible for developing, monitoring, and biennial updating of Orange County’s CMP. Orange County adopted its most recent CMP in 2007. The CMP addresses the impact of local growth on the regional transportation system. Statutory elements of the CMP include Highway and Roadway System monitoring, multi-modal system performance analysis, the Transportation Demand Management program, the Land Use Analysis program, and local conformance for all the county’s jurisdictions.

The goals of Orange County’s CMP are to support regional mobility and air quality objectives by reducing traffic congestion, provide a mechanism for coordinating land use and development decisions that support the regional economy, and determine gas tax fund eligibility. To meet these goals, the CMP contains a number of policies designed to monitor and address system performance issues. OCTA developed the policies that makeup Orange County’s CMP with local agencies, Caltrans and the South Coast Air Quality Management District.

For this study the Orange County CMP requires the analysis of operating conditions on any of the CMP-designated roadway segments or intersections in the County. CMP standards state that the LOS on the CMP network at buildout of the proposed development will be: 1) LOS E or better, or 2) will not result in a cumulative increase of more than 0.10 in v/c ratio if the established LOS standard is worse than LOS E. The CMP designations are consistent with **Table 1**.

Within the study area there are two CMP intersections:

1. I-5 SB ramps / Crown Valley Parkway; and
2. I-5 NB ramps / Crown Valley Parkway.



Legend:

- # Study Intersection Location
- Study Roadway Segments
- GSP Area

Exhibit 1: Gateway Specific Plan Study Intersections and Roadway Segments

3.0 EXISTING CONDITIONS

The following analysis and summary are intended to document the existing conditions to establish the 2021 baseline conditions for the GSP area.

3.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS

The characteristics of the roadway system within the Gateway Area are shown in **Table 4**.

Table 4
Study Area Roadway Characteristics

Roadway	Classification ¹	Jurisdiction	Direction	Existing Travel Lanes	Median Type ²	Posted Speed Limit (mph)	On-Street Parking Allowed?
Crown Valley Parkway	Major	Laguna Niguel	North-South	3 WB/4 EB East of Cabot 6 Lanes West of Cabot	TWLT-L-RM	40-45	No
Paseo De Colinas	Primary	Laguna Niguel	East-West	4	RM-TWLT-L	45	No
Forbes Road	Local	Laguna Niguel	North-South	2	PM	25	No
Cabot Road	Primary	Laguna Niguel	North-South	4	RM-TWLT-L	45	Yes
Greenfield Drive	Primary	Laguna Niguel	North-South	4	RM	35	No
Rapid Falls Road	Local	Laguna Hills	East-West	2	PM	25	No

1: Source: Orange County Master Plan of Arterial Highways, 2007.

2: TWLT-L = Two-Way Left-Turn Lane, RM = Raised Median, PM = Painted Median, NM = No Median.

Exhibit 2 shows the existing conditions lane geometry and intersection controls for the study area intersections.

The I-5 is currently under construction and has been reduced lane capacity at the following intersections:

- #1- I-5 Northbound Ramps / Crown Valley Parkway
 - Removal of left lane in the westbound direction
 - Removal of through lane in the eastbound direction
- #2- I-5 Southbound Ramps / Crown Valley Parkway
 - Removal of through-right lane in the eastbound direction

The removal of one (1) westbound left and one (1) eastbound through at the southbound ramps intersections. There is also the removal of an option through-right at the NB ramps intersections.

3.2 EXISTING TRAFFIC VOLUMES

To determine the existing operations of the study intersections, AM and PM peak period traffic volumes were estimated based on new traffic counts collected on Tuesday, November 2, 2021 and on Wednesday, November 3, 2021. The average of both days was taken to determine the existing traffic count volumes. Detailed traffic count data is provided in **Appendix A**.

Exhibit 3 and **Exhibit 4** show existing AM and PM peak hour volumes at the study intersections.

In addition to the traffic counts for the intersection and roadway segment operational analyses, this 5-year traffic review also conducted driveway counts at two currently occupied residential developments (Apex and Skye Apartments) and the Costco Wholesale. The following driveway counts were collected:

- Skye: 2 access driveways
- Apex: 2 access driveways
- Costco: 1 driveway along Crown Valley Parkway
- Costco: 1 driveway along Cabot Road

These driveway counts were collected to determine if the sites are generating trips at a rate that is consistent with the 2016 5-year update. Additionally, actual traffic volumes from the residential developments were utilized to establish trip generation rates to be used in future year forecasts. Actual counts observed from existing land uses can provide a customized and locally representative trip generation rate compared to industry standard rates based on nationally collected data.

3.3 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Existing conditions AM and PM peak hour intersection analysis is shown in **Table 5**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 2**. ICU and HCM analysis sheets are provided in **Appendix B**.

Table 5
Intersection Analysis – Existing Conditions

Intersection			Control Type	Peak Hour	Agency	Existing Conditions	
						ICU/Delay ¹	LOS
1	I-5 NB Ramps	Crown Valley Parkway	Signal	AM PM	Caltrans	9.5 9.6	A A
2	I-5 SB Ramps	Crown Valley Parkway	Signal	AM PM	Caltrans	29.2 31.0	C C
3	Forbes Road	Crown Valley Parkway	Signal	AM PM	Laguna Niguel	0.48 0.63	A B
4	Cabot Road	Crown Valley Parkway	Signal	AM PM	Laguna Niguel	0.68 0.78	B C
5	Crown Valley Parkway	Greenfield Drive	Signal	AM PM	Laguna Niguel	0.74 0.74	C C
6	Greenfield Drive	Rancho Niguel Road	Signal	AM PM	Laguna Niguel	0.59 0.70	A B
7	Cabot Road	Paseo De Colinas	Signal	AM PM	Laguna Niguel	0.60 0.67	A B
8	Cabot Road	Rapid Falls Road	Signal	AM PM	Laguna Hills/ Laguna Niguel	0.33 0.32	A A
9	Cabot Road	Costco Entrance	Signal	AM PM	Laguna Niguel	0.32 0.49	A A
10	Forbes Road	Cape Drive	TWSC	AM PM	Laguna Niguel	10.5 11.4	B B
11	Forbes Road	Getty Drive	TWSC	AM PM	Laguna Niguel	10.2 10.4	B B

Note: TWSC = Two-Way-Stop-Control, Delay shown in seconds per vehicle

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 5**, the study intersections are currently operating at an acceptable LOS during the AM and PM peak hours for *Existing* conditions.

3.4 EXISTING CONDITIONS ROADWAY SEGMENT ANALYSIS

The roadway level of service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for *Existing* conditions are shown on **Table 6**. Review of this table indicates that the study roadway segments are currently operating at an acceptable level of service (LOS D or better).

Table 6
Roadway Segment – Existing Conditions

Roadway	Segment	Roadway Classification	Existing Lane Configuration	LOS E Capacity	2021 ADT	LOS
Crown Valley Parkway	I-5 SB Ramps to Forbes Road	Major	7 Lanes Divided	65,700	54,689	D
Crown Valley Parkway	Forbes Road to Cabot Road	Major	7 Lanes Divided	65,700	54,428	D
Crown Valley Parkway	Cabot Road to Greenfield Drive	Major	6 Lanes Divided	56,300	42,128	C
Cabot Road	Costco Entrance to Skye Driveway	Primary	4 Lanes Divided	37,500	13,916	A
Cabot Road	Cabot Road to Rapid Falls Road	Primary	4 Lanes Divided	37,500	14,686	A



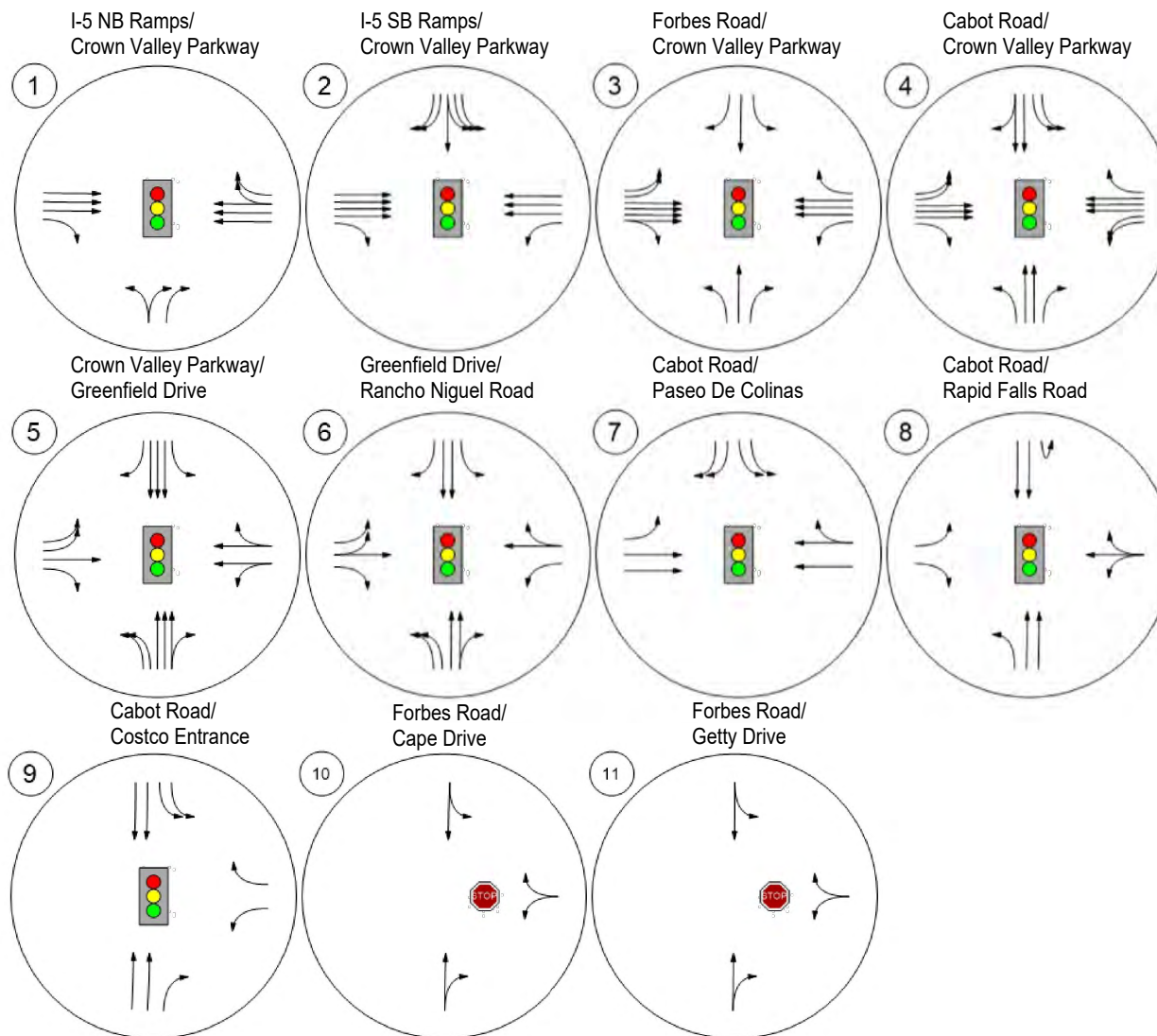


Exhibit 2: Lane Geometry and Intersection Controls

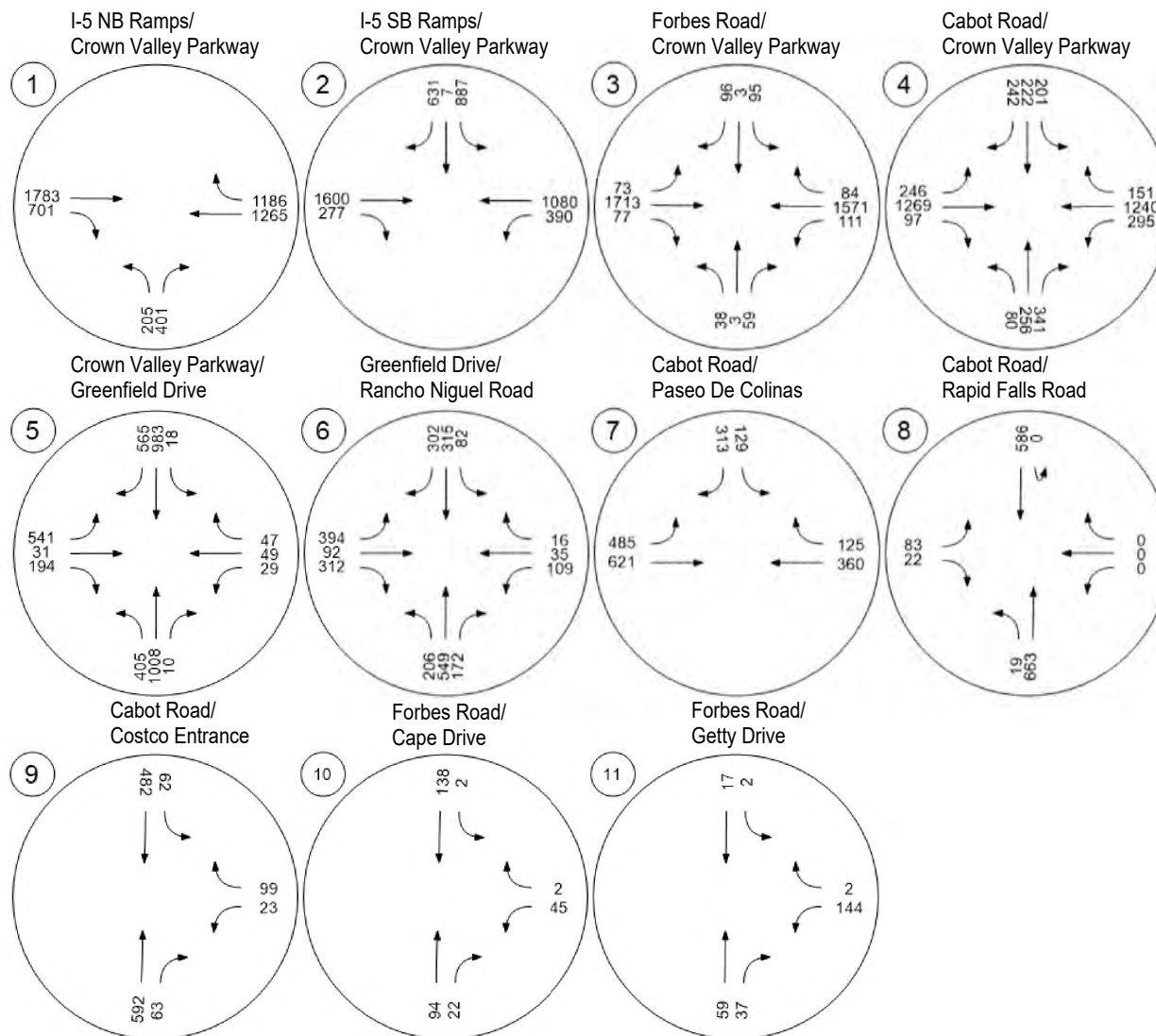


Exhibit 3: Existing AM Peak Hour Volumes

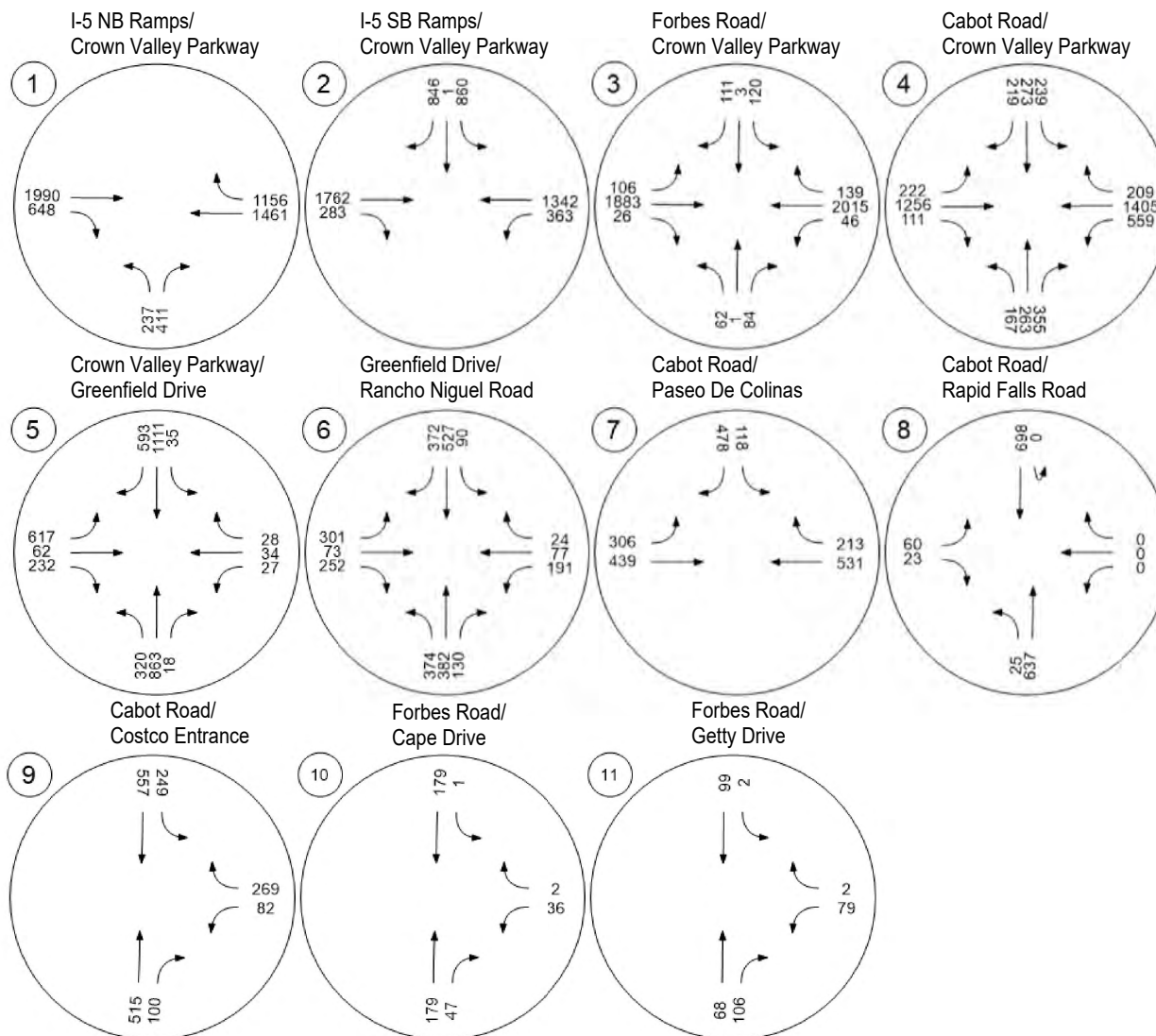


Exhibit 4: Existing PM Peak Hour Volumes

4.0 GATEWAY SPECIFIC PLAN

This section provides an overview of the current land uses within the GSP in relation to the 2011 GSP and the analysis methodology of the GSP for this 5-year traffic review.

4.1 GSP LAND USES

The 2011 GSP allocated and outlined development capacities for the GSP area. As outlined in section 4.3.3 of the 2011 GSP, a maximum of 2,994 dwelling units and up to 2,259,931 square feet of non-residential is allowed within the GSP area. The maximum buildout land use capacities for the GSP area are listed by planning districts in **Table 7**. The locations of the 11 planning districts are shown in **Exhibit 5**.

Table 7
Buildout GSP Development Land Use Capacity

Planning District		Residential ¹	Retail ²	Office ²	Hotel ¹	Business Park ²	Auto Sales ²
A	Galivan Basin					76,480	
B	Camino Capistrano Business Park					323,200	
C	Hillside Office-Residential	220		305,460	50		
D	Cabot Office-Residential	709					
E	Mixed-Use Village	1,118	87,338	302,764	50		
F	Cabot South	142		173,900			
G	Crown Valley Retail Commercial - Residential	142	247,639		50		
H	Transit Oriented Mixed-Use Corridor	663	76,000	328,400	50		
I	Camino Capistrano Commercial Service		62,509	30,492			45,739
J	Star Drive						141,860
K	South Camino Capistrano		58,150		150		
Total		2,994	531,636	1,141,016	350	399,680	187,599

1: Du = Dwelling Units

2: SF = Square feet

City staff provided a complete listing of existing and entitled development for the GSP, representing the currently allowable buildout of the GSP as of 2021. The existing and entitled land uses were compared to the maximum allowable GSP development capacities to determine the remaining development capacity for each of the planning districts. **Table 8** shows the remaining buildout of the GSP. A complete list of projects, as provided by City staff, is provided in **Appendix C**.

Table 8
Remaining GSP Development Land Use Capacity

Planning District		Residential ¹	Retail ²	Office ²	Hotel ¹	Business Park ²	Auto Sales ²
A	Galivan Basin						
B	Camino Capistrano Business Park					108,172	
C	Hillside Office-Residential	220		305,460	50		
D	Cabot Office-Residential						
E	Mixed-Use Village	359	26,549	94,129	50		
F	Cabot South						
G	Crown Valley Retail Commercial - Residential	142	54,979		50		
H	Transit Oriented Mixed-Use Corridor	663	51,770	220,702	50		
I	Camino Capistrano Commercial Service		12,400	6,062			9,093
J	Star Drive						15,883
K	South Camino Capistrano		44,615		117		
Total		1,384	190,313	626,353	317	108,172	24,976

1: Du = Dwelling Units

2: SF = Square feet

4.2 REGIONAL TRAVEL DEMAND MODEL

This 5-year traffic review utilized the latest edition of the Orange County Transportation Authority Model (OCTAM) to account for the GSP land uses within the GSP area. The OCTAM is a regional travel demand model managed and validated by OTCA for use throughout Orange County.

OCTAM model data was reviewed for the GSP area for the model base year (2016) and the buildout year 2045.

An annual growth rate was developed for the area and applied to existing volumes to establish a “No Project” scenario; a scenario in which no additional buildout of the GSP takes place. This growth rate was applied to existing volumes to develop a 2045 No Project scenario. Remaining buildout of the GSP was added to the 2045 No Project scenario to develop a “With Project” scenario, representing the complete buildout of the GSP for year 2045 conditions.

4.2.1 ANALYSIS SCENARIOS

The following traffic scenarios were prepared for analysis:

- Existing 2021 Conditions – Representing current traffic
- Forecast Year 2045 No Project Conditions – Representing existing and entitled GSP land uses for Year 2045
- Forecast Year 2045 With Project Conditions – Representing complete buildout of the GSP for Year 2045



The two long-range scenarios provide the traffic conditions in Year 2045 assuming no additional buildout of the GSP and complete buildout of the GSP.

It should be noted, the 2011 GSP and the previous 2016 5-year traffic review utilized the Laguna Niguel / South County Sub-Area Model (SCSAM). It was determined the SCSAM model was not kept up-to-date with various input data including socioeconomic and roadway network data. The OCTAM model is regularly maintained and updated and can be a reliable source for future 5-year traffic reviews. For these reasons, this 5-year traffic review utilized OCTAM model data.

4.2.2 MODEL ASSUMPTIONS

As discussed above, the OCTAM model is based on land uses and input from the local Cities and regional agencies such as Caltrans. These include, but not limited to, the neighboring Cities of Dana Point, Mission Viejo, San Juan Capistrano, Laguna Beach, and San Clemente. As such, the model takes into consideration planned improvements and projects throughout the Orange County region (in particular, adjacent cities and roadway networks within and around the GSP area).

4.3 TRIP GENERATION

Trip generation represents the amount of traffic, both inbound and outbound, produced by a development. Determining trip generation is based on projecting the amount of traffic produced by new land uses. Industry standard *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021)* trip generation rates and observed data was used to determine trip generation of the various land uses within the GSP. An overview of the trip generation rates are outlined in **Table 9**.

Table 9
Trip Generation Rates

Proposed Land Use ¹	Unit ²	Daily Trips (ADTs)	AM Peak Hour Rate		PM Peak Hour Rate	
		Rate	In	Out	In	Out
Skye and Apex Apartments	DU	4.91	0.11	0.31	0.26	0.18
Hotel (ITE Code 310)	DU	7.99	0.26	0.20	0.30	0.29
General Office Building (ITE Code 710)	TSF	10.84	1.34	0.18	0.24	1.20
Business Park (ITE Code 770)	TSF	12.44	1.15	0.20	0.32	0.90
Shopping Plaza (ITE Code 821)	TSF	94.49	2.19	1.34	4.33	4.70
Automotive Sales New (ITE Code 840)	TSF	27.84	1.36	0.50	0.97	1.45

1: Rates from ITE Trip Generation (11th Edition, 2021), and based on existing driveway counts.

2: TSF = Thousand Square Feet, DU = Dwelling Units.

As discussed in Section 3.2, driveway counts were conducted at Costco Warehouse (27972 Cabot Road) and at the Apex (27960 Cabot Road) and Skye (28100 Cabot Road) residential developments. These counts were collected to determine if these sites are generating trips at a rate that is consistent with the 2016 5-year



traffic review. Additionally, the residential development driveway counts were converted to trips per unit and applied to future year modeling when considering any remaining buildout of multi-family dwelling units within the GSP area. **Table 10** summarizes the GSP trip generation.

Table 10
GSP Trip Generation

District ¹		Quantity	Land Use	Unit ²	Daily Trips (ADTs)	AM Peak Hour Volume			PM Peak Hour Volume		
						In	Out	Total	In	Out	Total
B	Camino Capistrano Business Park	108.17	770	TSF	12.44	124	22	146	34	98	132
C	Hillside Office-Residential	220	Dwy Counts	DU	4.91	23	69	92	57	40	97
		305.46	710	TSF	10.84	409	56	464	75	365	440
		50	310	DU	7.99	13	10	23	15	14	30
	Subtotal					445	135	580	147	419	566
E	Mixed-Use Village	359	Dwy Counts	DU	4.91	38	113	151	93	65	158
		33.36	821	TSF	94.49	73	45	118	145	157	301
		94.13	710	TSF	10.84	126	17	143	23	113	136
		50	310	DU	7.99	13	10	23	15	14	30
	Subtotal					250	185	435	276	348	624
G	Crown Valley Retail Commercial - Residential	142	Dwy Counts	DU	4.91	15	45	60	37	26	62
		54.98	821	TSF	94.49	120	74	194	238	258	496
		50	310	DU	7.99	13	10	23	15	14	30
	Subtotal					148	129	277	290	298	588
H	Transit Oriented Mixed Use Corridor	663	Dwy Counts	DU	4.91	70	209	278	172	120	292
		26.56	821	TSF	94.49	58	36	94	115	125	240
		220.70	710	TSF	10.84	295	40	335	54	264	318
		50	310	DU	7.99	13	10	23	15	14	30
	Subtotal					436	295	731	356	523	879
I	Camino Capistrano Commercial Service	21.85	821	TSF	94.49	48	29	77	95	103	197
		6.06	710	TSF	10.84	8	1	9	1	7	9
		9.09	840	TSF	27.84	12	5	17	9	13	22
	Subtotal					68	35	103	105	123	228
J	Star Drive	15.88	840	TSF	27.84	22	8	30	15	23	38
K	South Camino Capistrano	28.96	821	TSF	4.54	2	8	11	7	4	11
		117	310	DU	7.99	30	24	54	35	34	69
	Subtotal					33	32	65	42	38	80
Net Total						1,525	841	2,365	1,266	1,870	3,136

1: Rates from ITE Trip Generation (11th Edition, 2021), and based on existing driveway counts.

2: TSF = Thousand Square Feet, DU = Dwelling Units.

4.3.1 COSTCO WAREHOUSE DRIVEWAY TRIP GENERATION

Traffic counts were conducted at the Costco Warehouse driveways on Cabot Road and on Crown Valley Parkway on Tuesday November 2, 2021 and Wednesday, November 3, 2021 during the morning (7:00 - 9:00 AM) and evening (4:00 - 6:00 PM) peak periods. **Table 11** displays the trip generation rates for the Costco Warehouse driveways. Detailed traffic count data is provided in **Appendix A**.



Table 11
Observed Costco Warehouse Trip Generation

Source	AM Peak Period			PM Peak Period		
	In	Out	Total	In	Out	Total
2016 Driveway Counts	161	160	321	426	402	828
2021 Driveway Counts	254	218	471	570	567	1,137

Note: Only the Costco Warehouse gas station is open during the AM peak period since the retail building opens after 9:00 AM.

The 2021 Driveway counts have increased by 150 AM peak hour trips and 309 PM peak hour trips compared to the Costco Warehouse trip generation provided in 2016; representing an increase of approximately 40 to 45 percent. We recommend review of the Costco Warehouse driveway traffic during the next 5-year traffic review and compared to the previously observed traffic generation. Continued monitoring of the Costco Warehouse driveway volumes can assist in understanding how much Costco Warehouse represents the traffic volumes within the GSP.

4.3.2 RESIDENTIAL TRIP GENERATION

Traffic counts were conducted at the access driveways to the two currently occupied residential developments (Apex and Skye Apartments) to determine actual trip generation rates for multi-family land uses within the GSP. The observed trip generation rates were then used to forecast trip generation for future multi-family land uses.

Driveway counts were conducted on Tuesday November 2, 2021 and Wednesday, November 3, 2021 during the morning (7:00 - 9:00 AM) and evening (4:00 - 6:00 PM) peak periods. Using the acquired driveway counts trip generation rates were calculated and are displayed in **Table 12**. The resulting average trip generation rate per dwelling unit were used in the study in lieu of ITE Trip Generation rates to more accurately depict multi-family land uses. The driveway counts were combined and calculated based on the amount of occupied dwelling units at the time of the data collection available at the time of data collection. Detailed traffic count data is provided in **Appendix A**.

Table 12
Observed Multi-Family Dwelling Unit Trip Generation Rates

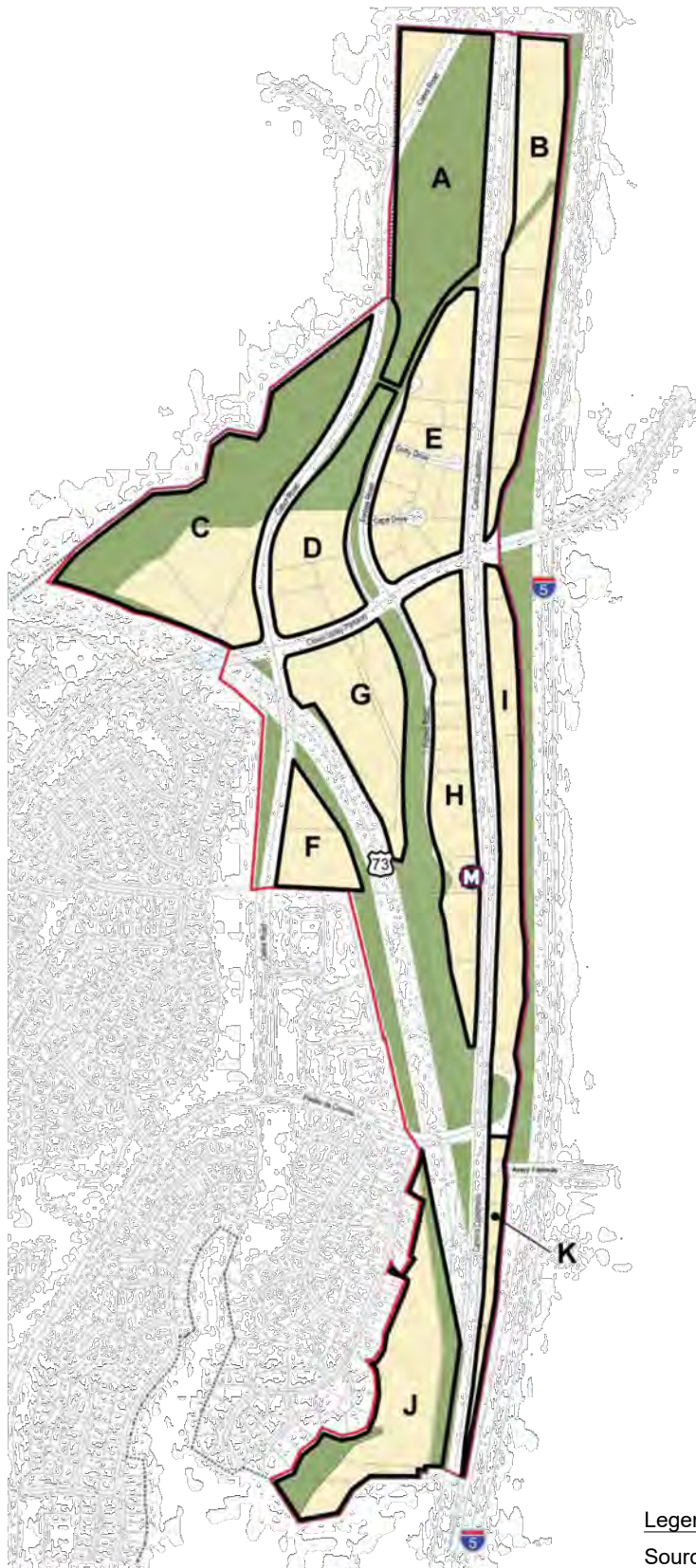
Land Use	AM Peak Period			PM Peak Period			Daily
	In	Out	Total	In	Out	Total	
Apartments	0.11	0.31	0.42	0.26	0.18	0.44	4.40

Notes: Based on driveway counts and current occupancy at time of data collection for Apex and Skye Apartments.

4.4 TRIP DISTRIBUTION

Projecting trip distribution involves the process of identifying probable destinations and traffic routes that will be utilized by the proposed project's traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the likely routes onto which project traffic

would distribute. The projected trip distribution for the remaining buildout of the GSP land uses were based on trip distributions utilized in previously approved traffic impact analyses the GSP area including *Forbes Road Apartments Mixed-Use Project, Cabot Career Lofts Apartment Project, Gateway Village Project, Mill Creek Luxury Apartment Project, and Picerne Group Multi-Family Residential Project*.



Legend:

Source: Laguna Niguel GSP (2011)

Exhibit 5: GSP Planning Districts

5.0 FORECAST YEAR 2045 NO PROJECT CONDITIONS

Forecast Year 2045 No Project (FYNP) conditions represents the Year 2045 without developing any additional land uses identified in the GSP.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the FYNP scenario are consistent with those previously shown in **Exhibit 2**, except at the I-5 / Crown Valley Parkway intersections. Crown Valley Parkway is currently under construction at the I-5 interchange and will modify the intersection, which modifies the intersection geometry as follows:

- #1- I-5 Northbound Ramps / Crown Valley Parkway
 - Addition of a through-right lane in the eastbound direction
 - Modification from a shared left-thru, and a right turn lane to two left turns and two right turns in the northbound direction
- #2- I-5 Southbound Ramps / Crown Valley Parkway
 - Addition of a through lane in the eastbound direction
 - Addition of a left turn lane in the westbound direction

Exhibit 6 shows the modifications made to intersections 1 and 2, approved Caltrans striping plans are provided in **Appendix D**.

5.2 FYNP TRAFFIC VOLUMES

Based on the OCTAM, an annual growth rate was developed for the area and applied to existing volumes to establish the Future Year “No Project” scenario. This “No Project” scenario does not assume any additional GSP projects beyond any land uses currently constructed or entitled.

Exhibit 7 and **Exhibit 8** show *FYNP* AM and PM peak hour volumes at the study intersections.

5.3 FYNP INTERSECTION LEVEL OF SERVICE ANALYSIS

FYNP AM and PM peak hour intersection analysis is shown in **Table 13**. Calculations are based on the geometrics at the study area intersections as shown in **Exhibit 6**. Traffic analysis sheets are provided in **Appendix B**.

Table 13
Intersection Analysis – Future Year 2045 No Project Conditions

Intersection			Control Type	Peak Hour	Agency	FYNP Conditions	
						ICU/Delay ¹	LOS
1	I-5 NB Ramps	Crown Valley Parkway	Signal	AM PM	Caltrans	7.9 7.8	A A
2	I-5 SB Ramps	Crown Valley Parkway	Signal	AM PM	Caltrans	27.0 27.7	C C
3	Forbes Road	Crown Valley Parkway	Signal	AM PM	Laguna Niguel	0.54 0.63	A B
4	Cabot Road	Crown Valley Parkway	Signal	AM PM	Laguna Niguel	0.74 0.82	C D
5	Crown Valley Parkway	Greenfield Drive	Signal	AM PM	Laguna Niguel	0.79 0.77	C C
6	Greenfield Drive	Rancho Niguel Road	Signal	AM PM	Laguna Niguel	0.63 0.72	B C
7	Cabot Road	Paseo De Colinas	Signal	AM PM	Laguna Niguel	0.65 0.70	B C
8	Cabot Road	Rapid Falls Road	Signal	AM PM	Laguna Hills/ Laguna Niguel	0.35 0.33	A A
9	Cabot Road	Costco Entrance	Signal	AM PM	Laguna Niguel	0.34 0.52	A A
10	Forbes Road	Cape Drive	TWSC	AM PM	Laguna Niguel	11.8 12.7	B B
11	Forbes Road	Getty Drive	TWSC	AM PM	Laguna Niguel	10.9 10.9	B B

Note: TWSC = Two-Way-Stop-Control, Delay shown in seconds per vehicle

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown

As shown in **Table 13**, the study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *FYNP* conditions.

5.4 FYNP ROADWAY SEGMENT ANALYSIS

The roadway level of service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for *FYNP* Conditions are shown on **Table 14**. The Study roadway segments are projected to operate at acceptable LOS for *FYNP* conditions.

Table 14
Roadway Segment – Forecast Year 2045 No Project Conditions

Roadway	Segment	Roadway Classification	FYNP Lane Configuration	LOS E Capacity	FYNP ADT	LOS
Crown Valley Parkway	I-5 SB Ramps to Forbes	Major	8 Lanes Divided	75,000	58,345	C
Crown Valley Parkway	Forbes to Cabot	Major	8 Lanes Divided	75,000	58,066	C
Crown Valley Parkway	Cabot to Greenfield	Major	6 Lanes Divided	56,300	44,944	B
Cabot Road	Costco to Skye	Primary	4 Lanes Divided	37,500	14,846	A
Cabot Road	Cabot to Rapid Falls	Primary	4 Lanes Divided	37,500	15,667	A





Legend:

← Planned Improvements

Exhibit 6: Forecast Year 2045 No Project Intersection Geometry

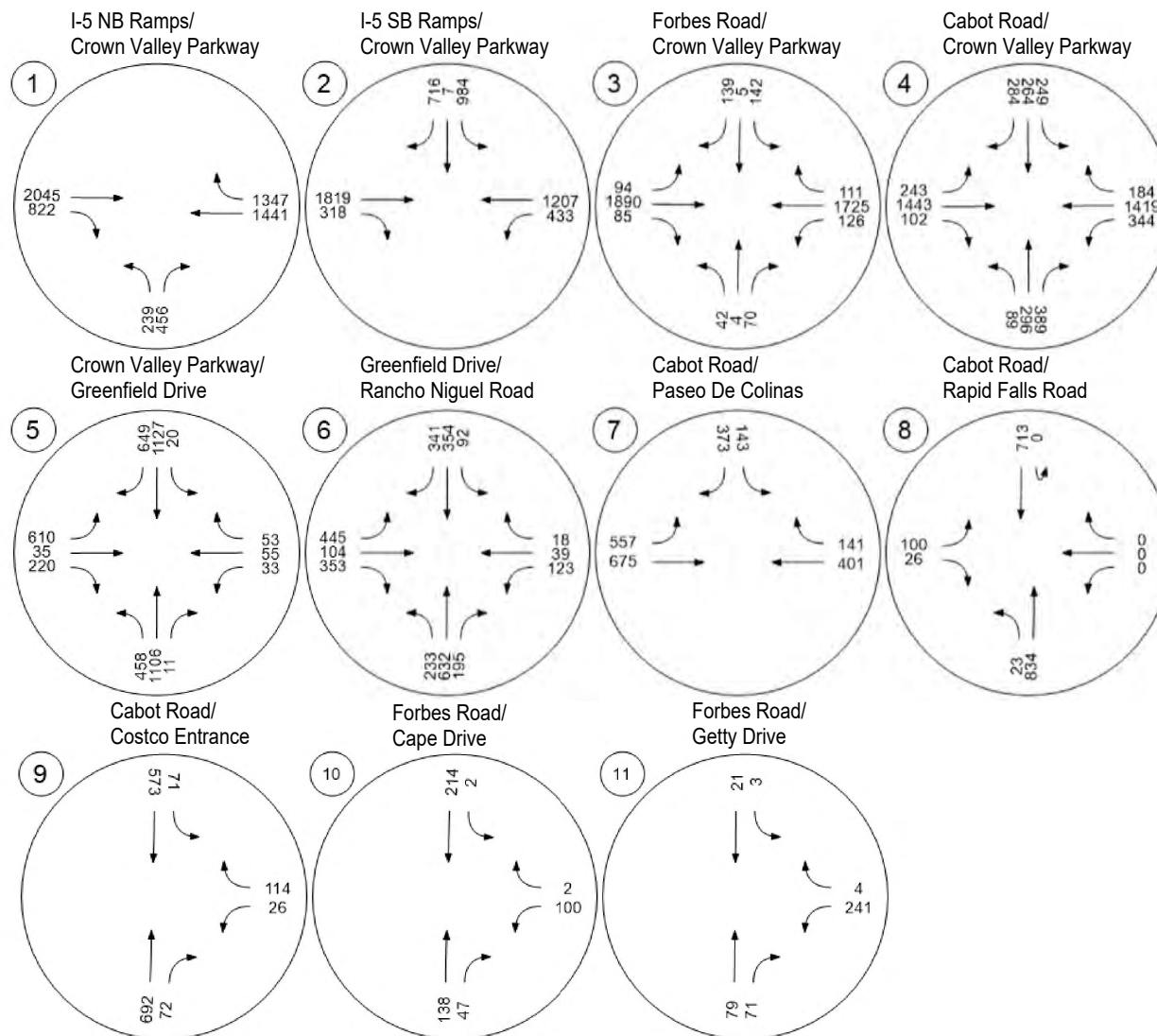


Exhibit 7: Forecast Year 2045 No Project AM Peak Hour Volumes

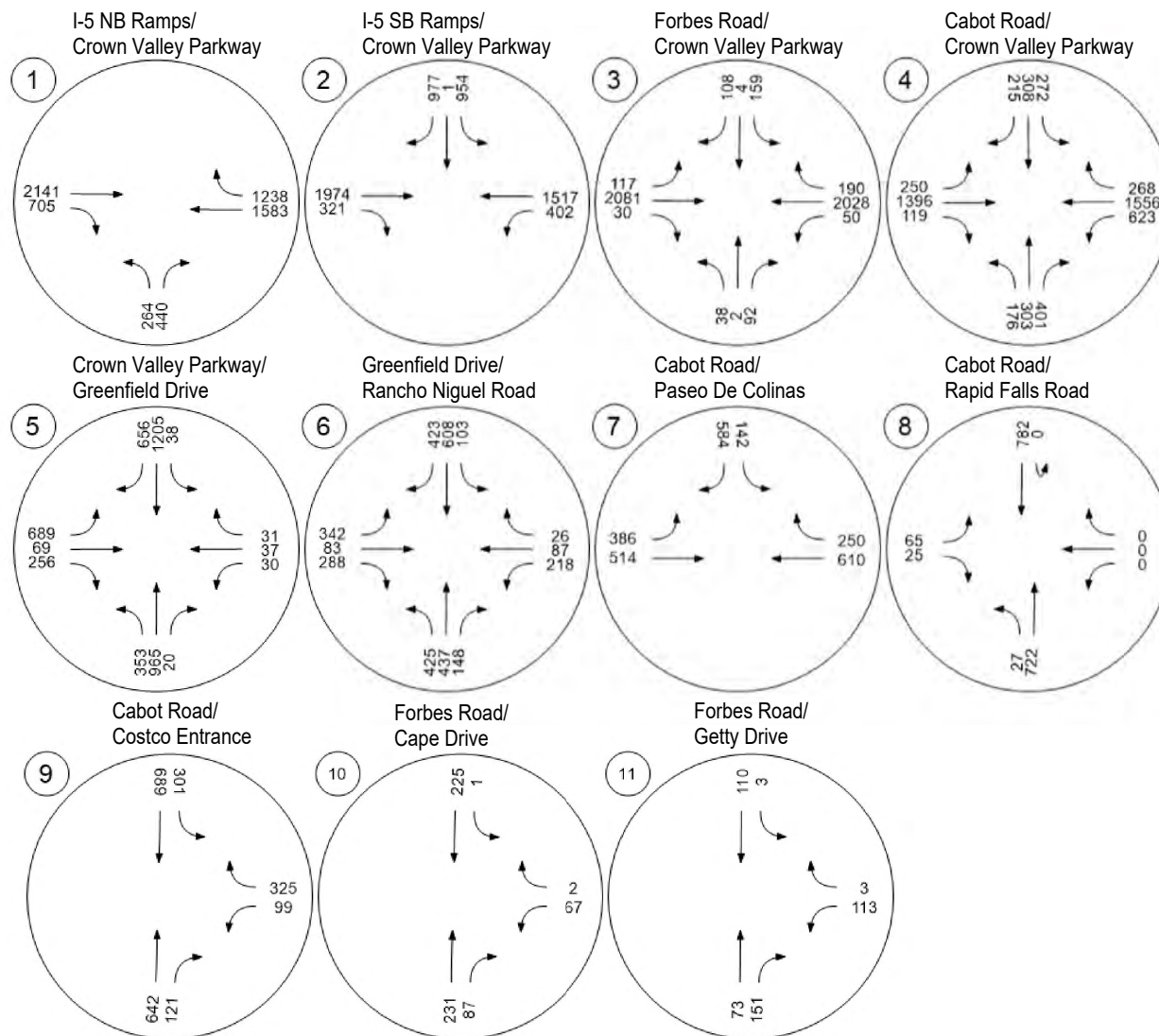


Exhibit 8: Forecast Year 2045 No Project PM Peak Hour Volumes

6.0 FORECAST YEAR 2045 WITH PROJECT CONDITIONS

Forecast Year 2045 With Project (FYWP) traffic conditions analysis is provided to evaluate traffic operations assuming full buildout conditions of the GSP land uses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *FYWP* scenario are consistent with those previously discussed in Section 5.1 and shown **Exhibit 6**.

6.2 FYWP TRAFFIC VOLUMES

This scenario builds upon the volume development outlined in Section 5.2 for the *FYNP* scenario. The remaining GSP land uses were added to the volumes developed for the *FYNP* scenario to represent a scenario in which the full buildout of the GSP occurs. The trip generation and trip distribution of the remaining land uses were developed as outlined in section 4; using actual trip generation rates for residential land uses and trip distributions based on approved projects within the GSP area.

Exhibit 9 and **Exhibit 10** show *FYWP* AM and PM peak hour volumes at the study intersections.

6.3 FYWP INTERSECTION LEVEL OF SERVICE ANALYSIS

FYWP conditions AM and PM peak hour intersection analysis is shown in **Table 15**. Traffic analysis sheets are provided in **Appendix B**.

Table 15
Intersection Analysis – Forecast Year 2045 With Project Conditions

Intersection			Control Type	Peak Hour	Agency	FYWP Conditions	
						ICU/Delay ¹	LOS
1	I-5 NB Ramps	Crown Valley Parkway	Signal	AM PM	Caltrans	8.3 8.3	A A
2	I-5 SB Ramps	Crown Valley Parkway	Signal	AM PM	Caltrans	27.0 27.7	C C
3	Forbes Road	Crown Valley Parkway	Signal	AM PM	Laguna Niguel	0.72 0.86	C D
4	Cabot Road	Crown Valley Parkway	Signal	AM PM	Laguna Niguel	0.84 1.00	D E
5	Crown Valley Parkway	Greenfield Drive	Signal	AM PM	Laguna Niguel	0.82 0.83	D D
6	Greenfield Drive	Rancho Niguel Road	Signal	AM PM	Laguna Niguel	0.64 0.72	B C
7	Cabot Road	Paseo De Colinas	Signal	AM PM	Laguna Niguel	0.68 0.76	B C
8	Cabot Road	Rapid Falls Road	Signal	AM PM	Laguna Hills/ Laguna Niguel	0.37 0.35	A A
9	Cabot Road	Costco Entrance	Signal	AM PM	Laguna Niguel	0.38 0.60	A B
10	Forbes Road	Cape Drive	TWSC	AM PM	Laguna Niguel	11.8 12.7	B B
11	Forbes Road	Getty Drive	TWSC	AM PM	Laguna Niguel	10.9 10.9	B B

Note: AWSC = All- Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 15**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *FYWP* conditions with the exception of the following intersection:

- #4 – Cabot Road / Crown Valley Parkway (LOS E PM Peak Hour).

6.4 FYWP ROADWAY SEGMENT ANALYSIS

The roadway level of service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for *FYWP* Conditions are shown on **Table 16**. The study roadway segments are projected to operate at acceptable LOS for *FYWP* conditions.

Table 16
Roadway Segment – Forecast Year 2045 With Project Conditions

Roadway	Segment	Roadway Classification	FYWP Lane Configuration	LOS E Capacity	FYWP ADT	LOS
Crown Valley Parkway	I-5 SB Ramps to Forbes	Major	8 Lanes Divided	75,000	59,326	C
Crown Valley Parkway	Forbes to Cabot	Major	8 Lanes Divided	75,000	63,360	C
Crown Valley Parkway	Cabot to Greenfield	Major	6 Lanes Divided	56,300	53,258	C
Cabot Road	Costco to Skye	Primary	4 Lanes Divided	37,500	15,229	A
Cabot Road	Cabot to Rapid Falls	Primary	4 Lanes Divided	37,500	15,717	A

6.5 FYWP RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *FYWP* conditions.

FYWP Recommended Improvement: #4 Cabot Rd / Crown Valley Parkway – Improve and widen intersection based on the following lane configurations. Note, these are consistent with the recommendations presented in the 2011 GSP shown in Figure 3-4A, page 3-21. The proposed lane configurations from the 2011 GSP are provided in **Appendix D**.

- Crown Valley Eastbound – Add an eastbound through lane.
- Crown Valley Westbound – Add a westbound shared through/right-turn lane; maintain existing right-turn lane. An additional westbound receiving lane is needed departing the intersection for westbound travel.
- Cabot Northbound – Modify the two northbound through lanes to consist of one through and one shared through/right-turn lane.
- Cabot Southbound – Add a dedicated southbound right-turn lane; maintain existing shared through/right-turn lane.

Exhibit 11 depicts the Recommended Improvements.

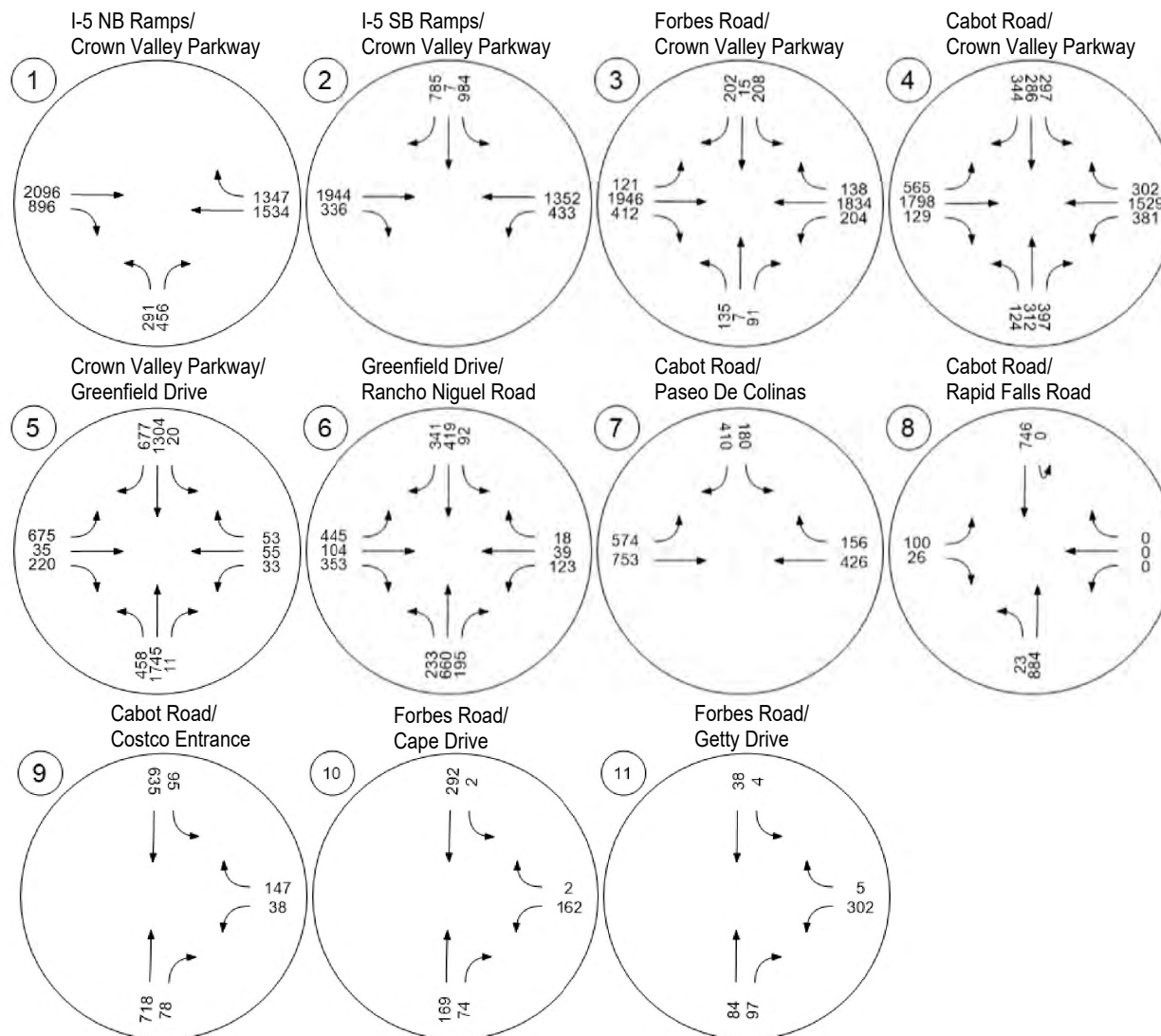


Exhibit 9: Forecast Year 2045 With Project AM Peak Hour Volumes

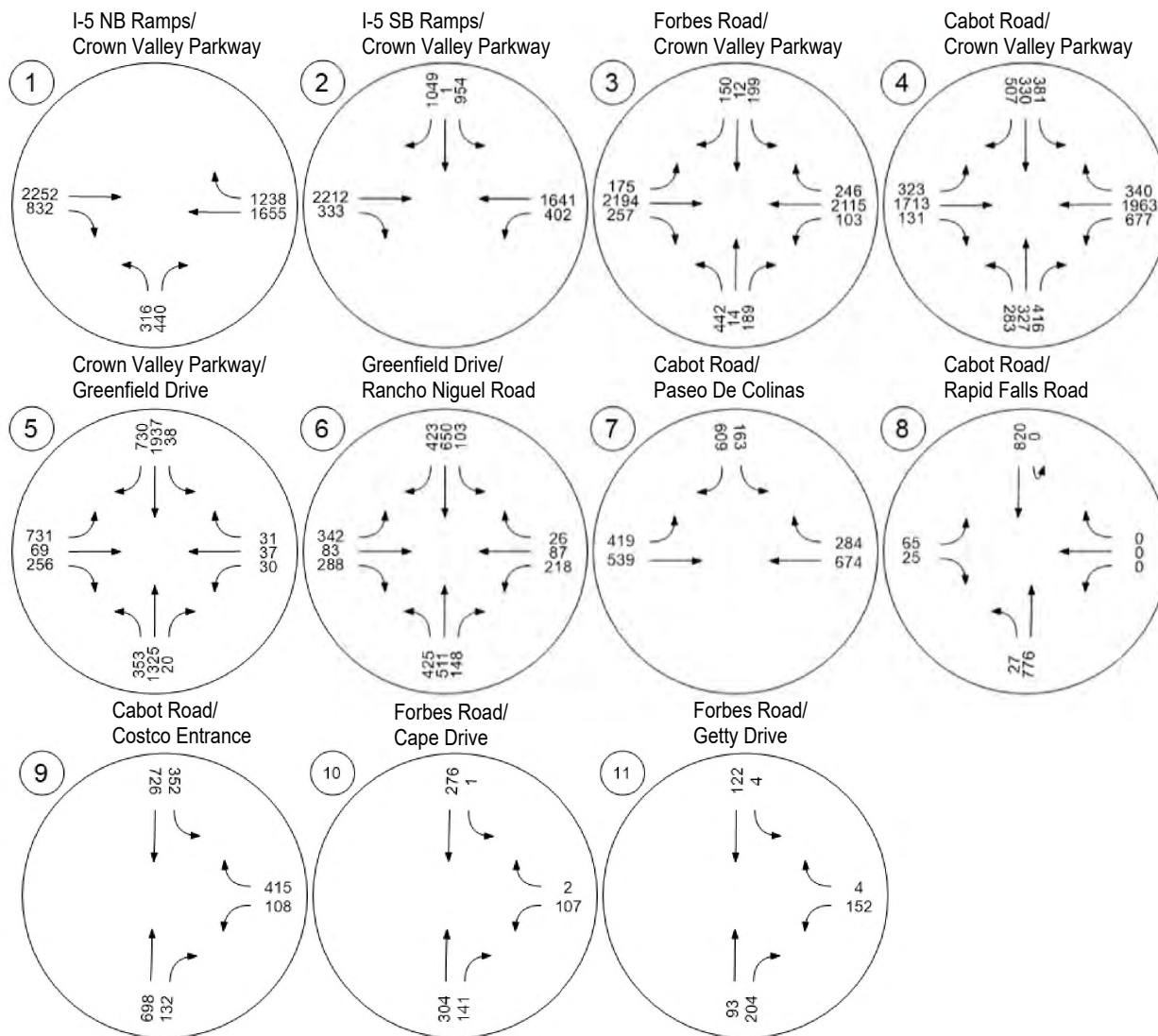
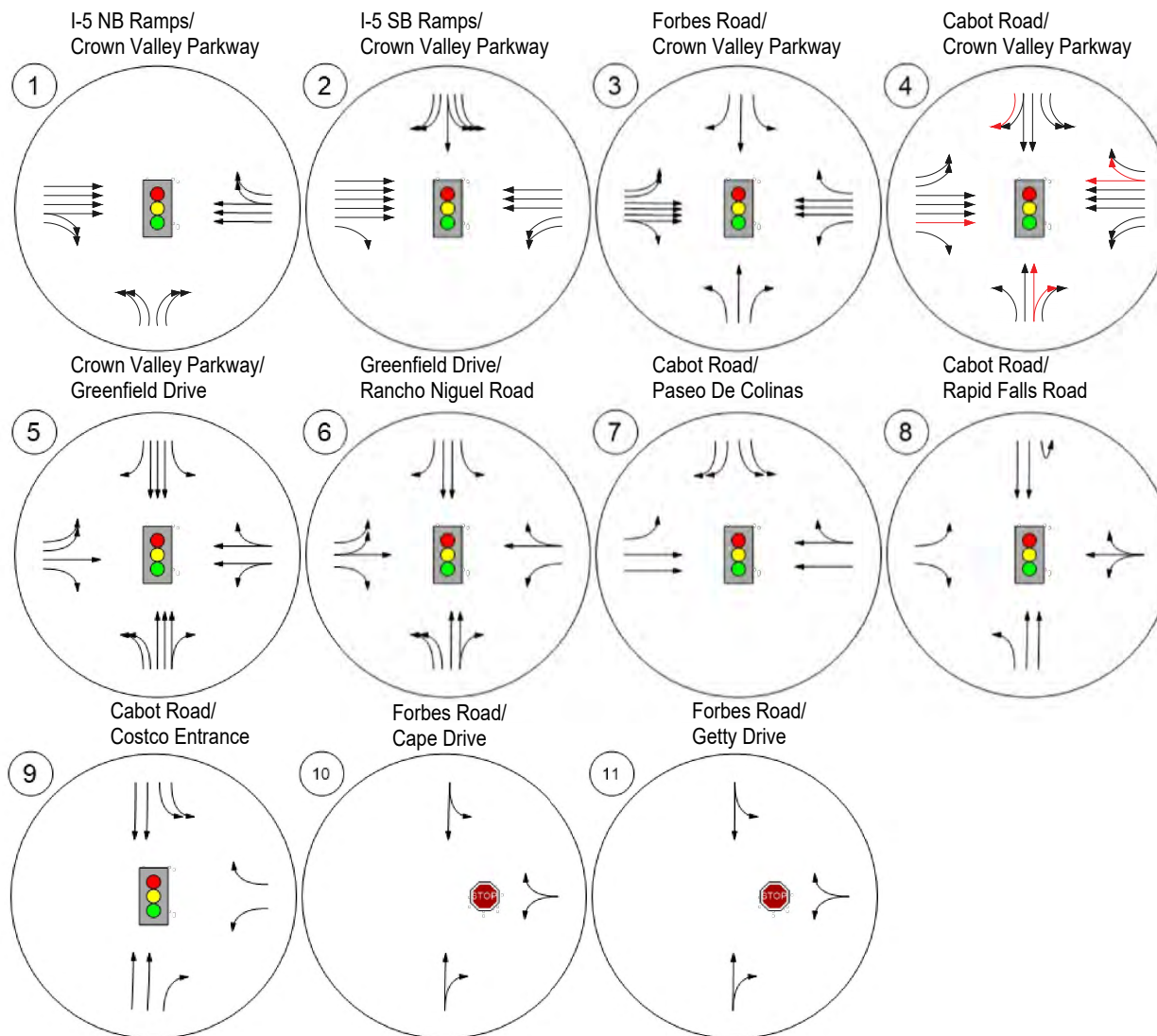


Exhibit 10: Forecast Year 2045 With Project PM Peak Hour Volumes



Legend:

← Recommended Improvements

Exhibit 11: Forecast Year 2045 Recommended Improvements

7.0 DEVELOPMENT ENTITLEMENT MANAGEMENT SYSTEM (DEMS)

The 2011 GSP included the Development Entitlement Management System (DEMS) that was designed to relate the amount of development to the amount of traffic that is generated within critical areas of the Specific Plan. The DEMS allows for an exchange in the amount of residential units and non-residential square footage for a project in certain GSP Planning Districts (Planning Districts C, D, E, and H) provided development capacity and traffic trip thresholds are not exceeded. This section provides an overview of the 2011 GSP and the current DEMS trip limits. **Table 17** lists the trip generation capacity of the four DEMS Planning Districts as listed in the 2011 GSP.

Table 17
Automobile Trip Generation Capacity

District		AM Peak		PM Peak	
		In	Out	In	Out
C & D	Existing 2010	95	50	60	75
	Net Additional	900	400	600	1200
	Total Future	995	450	660	1275
E	Existing 2010	175	105	200	250
	Net Additional	345	680	760	570
	Total Future	520	785	960	820
H	Existing 2010	175	100	75	180
	Net Additional	550	520	740	755
	Total Future	725	620	815	935

Note: Trip capacities shall not apply to other planning districts.

Per the GSP no development project shall be considered that exceeds the trip generation limits shown in **Table 17**. Where a proposed land use exceeds the capacity for a category of use in a planning district and there is remaining automobile trip capacity, the use may be considered by the decision-making authority as part to of the discretionary application process, provided that it does not exceed the automobile trip capacity for that planning district.

As outlined in the GSP, when the total vehicle trip generation capacity is reached, no new development shall be permitted in the planning district unless one or more of the following conditions is met:

1. Additional mitigation is implemented that reduces traffic impacts on Crown Valley Parkway, Forbes Road, Cabot Road, and the Crown Valley Parkway/I-5 interchange to levels below those projected by the City for the Gateway Specific Plan.
2. Traffic analyses are conducted that indicate actual land use trip generation in a planning district is less than forecast for development projects, where the net difference in trips can be allocated toward increased development capacity.

3. Traffic analyses are conducted that indicate traffic volumes on Crown Valley Parkway, Forbes Road, Cabot Road, and the Crown Valley Parkway/I-5 interchange, attributable to regional trips, are below those assumed in the original Gateway Specific Plan traffic analysis, whereas the difference may be considered as the basis for increases in development and trip generation capacity in the planning district.

Changes in land use and trip generation limits shall be reviewed with the Planning Commission and approved by the City Council as an amendment to the 2011 GSP.

As identified in the GSP, the Community Development Department in collaboration with the Public Works Department shall maintain tables of current data regarding existing land uses, AM and PM peak hour trip generation, and remaining land use and trip generation capacities for each planning district.

Table 18 provides a summary of trips within each Planning District accounting for 2010 conditions and new land uses added since 2010. The “Total Future” trips listed in the table are the “not-to-exceed” number of trips that can be generated by new and existing/remaining development within each district. The “Net Remaining Trips Available” are the remaining available trips within the planning districts.

As shown in **Table 18**, District C and D have less than 100 outbound AM trips remaining. Per the GSP maximum land use allocation it appears District D is fully built out. Therefore, all of the trips shown for districts C and D would be allocated to Planning District C. Since Planning District C has limited undeveloped land, it is likely that there will be a designated vehicle trips that will remain unutilized as no land uses could be shifted into District C when there are no AM outbound trips left to transfer.

As shown in **Table 18**, there remains available trips in District E and H. The total number of potential trips for these districts have been accounted for in the model development and traffic assignments (Year 2045 Full Buildout). Therefore, if these districts are developed with land uses that generate fewer trips than the maximum allowable, impact on traffic operations would be reduced and result in better forecast levels of service than is currently projected.

Based on the capacity analysis presented and discussed in the previous sections, it is not recommended that any changes to the DEMS limits be implemented at this time.

Table 18
Trip Generation Capacity w/ Current Development Approvals

District		AM Peak		PM Peak	
		In	Out	In	Out
C & D	Existing 2010 ¹	95	50	60	75
	Net Additional from GSP Development	900	400	600	1,200
	Total Future ²	995	450	660	1,275
	Less Trips: Allocated Trips to Approved Gateway Projects ³	(91)	(356)	(375)	(200)
	Net Remaining Trips Available	904	94	285	1,075
E	Existing 2010 ¹	175	105	200	250
	Net Additional from GSP Development	345	680	760	570
	Total Future ²	520	785	960	820
	Less Trips: Allocated Trips to Approved Gateway Projects ⁴	(219)	(386)	(544)	(432)
	Net Remaining Trips Available	301	399	416	388
H	Existing 2010 ¹	175	100	75	180
	Net Additional from GSP Development	550	520	740	755
	Total Future ²	725	620	815	935
	Less Trips: Allocated Trips to Approved Gateway Projects ⁵	(32)	(97)	(80)	(56)
	Net Remaining Trips Available	693	523	735	879

Notes:

1: Year 2010 Existing Volumes from 2011 GSP

2: Total Future refers to the "not-to-exceed" number of trips that can be generated by each DEMS District

3: Trips allocated to Project Approvals SP 11-03 (June 2011) and SP 13-05(May 2014); trips obtained from Project TIAs

4: Trips allocated to Project Approvals SP 14-05 (October 2015), SP 15-08 (September 2019); trips obtained from Project TIAs

5: Trips allocated to South Forbes Apts (309 units as of 9/9/2021); trips based on collected trip rate data, see Section 3.2)

8.0 SUMMARY AND RECOMMENDATIONS

The purpose of this 2021 5-year traffic review was to review the background data and shifts in the GSP land uses between Planning Districts to determine if the existing infrastructure can accommodate the remaining GSP land uses. This analysis reviewed the existing 2021 traffic conditions and analyzed Forecast Year 2045 scenarios assuming no additional GSP buildout and full GSP buildout. Additionally, a review of the DEMS was conducted as part of the traffic review to determine if any changes are needed.

To provide acceptable operations for Forecast Year 2045 conditions, the following intersection improvements are recommended.

- Crown Valley Parkway and Cabot Road:
 - Crown Valley Eastbound – Add an eastbound through lane.
 - Crown Valley Westbound – Add a westbound shared through/right-turn lane; maintain existing right-turn lane. An additional westbound receiving lane is needed departing the intersection for westbound travel.
 - Cabot Northbound – Modify the two northbound through lanes to consist of one through and one shared through/right-turn lane.
 - Cabot Southbound – Add a dedicated southbound right-turn lane; maintain existing shared through/right-turn lane.

These improvements are consistent with the improvements identified in the 2011 GSP and no additional improvements are identified.

As new development is considered by the City, individual traffic impact analyses (TIA) would need to be conducted to ensure that the proposed development:

- Will not exceed the new DEMS trip limits
- Will not exceed the allowed development levels by land use for its respective planning district
- Can maintain acceptable traffic operations for roadways and intersections within the GSP area

At the time of this analysis, the I-5 and Crown Valley Parkway interchange improvements were currently under construction with an anticipated completion date of 2025. The subsequent 5-year traffic review should review the impacts of these improvements.

APPENDIX



APPENDIX A

EXISTING TRAFFIC COUNTS

ADT1 Crown Valley between I-5 SB Ramps and Forbes_TU.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	EB		WB		PM Period		EB		WB	
0:00	15		29		12:00		478		506	
0:15	19		28		12:15		481		509	
0:30	21		31		12:30		498		511	
0:45	20	75	29	117	12:45		509	1966	512	2038
1:00	11		25		13:00		508		519	
1:15	13		21		13:15		459		498	
1:30	15		18		13:30		461		498	
1:45	12	51	11	75	13:45		452	1880	476	1991
2:00	14		12		14:00		448		492	
2:15	11		16		14:15		447		496	
2:30	5		11		14:30		451		492	
2:45	6	36	15	54	14:45		472	1818	489	1969
3:00	8		14		15:00		498		493	
3:15	7		13		15:15		502		492	
3:30	11		14		15:30		525		498	
3:45	21	47	21	62	15:45		534	2059	511	1994
4:00	25		18		16:00		557		498	
4:15	38		23		16:15		549		544	
4:30	41		22		16:30		497		505	
4:45	54	158	44	107	16:45		500	2103	561	2108
5:00	62		49		17:00		460		497	
5:15	78		68		17:15		537		594	
5:30	125		101		17:30		542		546	
5:45	138	403	115	333	17:45		517	2056	501	2138
6:00	159		125		18:00		478		522	
6:15	215		151		18:15		438		523	
6:30	269		269		18:30		351		492	
6:45	279	922	270	815	18:45		354	1621	465	2002
7:00	339		319		19:00		342		332	
7:15	372		366		19:15		301		302	
7:30	513		414		19:30		315		301	
7:45	479	1703	429	1528	19:45		251	1209	305	1240
8:00	433		425		20:00		234		301	
8:15	458		439		20:15		231		208	
8:30	445		404		20:30		131		195	
8:45	496	1832	408	1676	20:45		151	747	194	898
9:00	450		415		21:00		128		178	
9:15	441		421		21:15		121		152	
9:30	425		465		21:30		72		116	
9:45	421	1737	481	1782	21:45		71	392	101	547
10:00	415		450		22:00		68		94	
10:15	411		422		22:15		75		95	
10:30	413		431		22:30		74		93	
10:45	424	1663	451	1754	22:45		69	286	71	353
11:00	421		460		23:00		54		68	
11:15	458		461		23:15		41		42	
11:30	405		455		23:30		39		38	
11:45	451	1735	501	1877	23:45		35	169	34	182

Total Vol.	10362	10180	20542		16306	17460	33766
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Daily Totals

EB	WB	Combined
26668	27640	54308

AM

PM

Split %	50.4%	49.6%	37.8%		48.3%	51.7%	62.2%
Peak Hour	11:45	11:45	11:45		15:30	16:45	16:45
Volume	1908	2027	3935		2165	2198	4237
P.H.F.	0.96	0.99	0.97		0.97	0.93	0.94

ADT1 Crown Valley between I-5 SB Ramps and Forbes_WE.**Prepared by AimTD LLC tel. 714 253 7888**

AM Period	EB		WB		PM Period		EB		WB	
0:00	16		25		12:00		459		508	
0:15	18		21		12:15		478		511	
0:30	25		28		12:30		495		515	
0:45	21	80	25	99	12:45		498	1930	516	2050
1:00	18		24		13:00		506		522	
1:15	15		22		13:15		502		501	
1:30	14		21		13:30		495		506	
1:45	13	60	15	82	13:45		462	1965	495	2024
2:00	11		14		14:00		451		489	
2:15	12		17		14:15		447		487	
2:30	11		14		14:30		449		486	
2:45	9	43	15	60	14:45		481	1828	475	1937
3:00	7		15		15:00		501		488	
3:15	8		14		15:15		506		502	
3:30	12		15		15:30		503		506	
3:45	18	45	28	72	15:45		499	2009	511	2007
4:00	24		21		16:00		497		547	
4:15	31		25		16:15		509		571	
4:30	42		24		16:30		502		500	
4:45	48	145	39	109	16:45		491	1999	591	2209
5:00	61		51		17:00		480		521	
5:15	89		71		17:15		552		610	
5:30	128		105		17:30		627		477	
5:45	141	419	125	352	17:45		467	2126	580	2188
6:00	161		128		18:00		471		578	
6:15	216		168		18:15		451		569	
6:30	268		171		18:30		345		551	
6:45	289	934	281	748	18:45		344	1611	515	2213
7:00	295		290		19:00		339		455	
7:15	401		326		19:15		329		452	
7:30	482		441		19:30		321		301	
7:45	501	1679	423	1480	19:45		319	1308	305	1513
8:00	433		457		20:00		225		301	
8:15	458		495		20:15		215		208	
8:30	451		344		20:30		125		195	
8:45	519	1861	399	1695	20:45		121	686	194	898
9:00	501		421		21:00		126		178	
9:15	505		423		21:15		119		152	
9:30	456		458		21:30		75		116	
9:45	425	1887	492	1794	21:45		74	394	101	547
10:00	418		464		22:00		71		94	
10:15	415		423		22:15		69		95	
10:30	411		465		22:30		68		93	
10:45	416	1660	455	1807	22:45		65	273	71	353
11:00	417		462		23:00		51		68	
11:15	419		468		23:15		44		42	
11:30	402		462		23:30		31		38	
11:45	421	1659	503	1895	23:45		28	154	34	182

Total Vol.	10472	10193	20665		16283	18121	34404
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Daily Totals

EB	WB	Combined
26755	28314	55069

AM**PM**

Split %	50.7%	49.3%	37.5%		47.3%	52.7%	62.5%
Peak Hour	8:45	11:45	11:45		16:45	17:45	17:15
Volume	1981	2037	3890		2150	2278	4362
P.H.F.	0.95	0.99	0.96		0.86	0.98	0.94

ADT2 Crown Valley between Forbes and Cabot_TU.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	EB		WB		PM Period		EB		WB	
0:00	21		31		12:00		455		455	
0:15	22		32		12:15		468		459	
0:30	21		28		12:30		498		454	
0:45	20	84	25	116	12:45	200	487	1908	446	1814
1:00	15		18		13:00		495		445	
1:15	11		19		13:15		499		478	
1:30	12		15		13:30		498		418	
1:45	15	53	11	63	13:45	116	495	1987	421	1762
2:00	13		12		14:00		489		419	
2:15	14		11		14:15		498		415	
2:30	11		15		14:30		495		407	
2:45	9	47	13	51	14:45	98	485	1967	454	1695
3:00	12		15		15:00		518		426	
3:15	11		14		15:15		502		456	
3:30	21		21		15:30		511		466	
3:45	22	66	22	72	15:45	138	537	2068	475	1823
4:00	21		18		16:00		545		481	
4:15	38		16		16:15		533		544	
4:30	45		18		16:30		483		487	
4:45	61	165	33	85	16:45	250	468	2029	584	2096
5:00	65		45		17:00		436		501	
5:15	89		48		17:15		524		586	
5:30	131		95		17:30		538		529	
5:45	152	437	115	303	17:45	740	510	2008	516	2132
6:00	168		125		18:00		498		511	
6:15	252		215		18:15		425		506	
6:30	306		232		18:30		415		455	
6:45	314	1040	258	830	18:45	1870	413	1751	444	1916
7:00	333		292		19:00		395		399	
7:15	352		329		19:15		355		395	
7:30	495		406		19:30		341		299	
7:45	473	1653	425	1452	19:45	3105	245	1336	295	1388
8:00	427		407		20:00		228		294	
8:15	456		431		20:15		201		295	
8:30	434		396		20:30		195		198	
8:45	488	1805	396	1630	20:45	3435	121	745	189	976
9:00	485		401		21:00		125		157	
9:15	459		402		21:15		135		152	
9:30	461		398		21:30		105		154	
9:45	455	1860	399	1600	21:45	3460	98	463	95	558
10:00	445		385		22:00		99		90	
10:15	435		383		22:15		95		96	
10:30	425		382		22:30		89		95	
10:45	426	1731	394	1544	22:45	3275	75	358	78	359
11:00	415		401		23:00		58		64	
11:15	426		415		23:15		55		42	
11:30	429		455		23:30		48		38	
11:45	445	1715	461	1732	23:45	3447	44	205	39	183

Total Vol.	10656	9478	20134		16825	16702	33527
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Daily Totals

EB	WB	Combined
27481	26180	53661

AM

PM

Split %	52.9%	47.1%	37.5%		50.2%	49.8%	62.5%
Peak Hour	8:45	11:30	11:45		15:30	16:45	17:15
Volume	1893	1830	3695		2126	2200	4212
P.H.F.	0.97	0.99	0.97		0.98	0.94	0.95

ADT2 Crown Valley between Forbes and Cabot_WE.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	EB		WB		PM Period		EB		WB	
0:00	19		25		12:00		452		432	
0:15	18		29		12:15		453		461	
0:30	21		27		12:30		459		463	
0:45	22	80	26	107	12:45		461	1825	463	1819
1:00	18		22		13:00		471		501	
1:15	15		21		13:15		492		502	
1:30	13		16		13:30		491		521	
1:45	14	60	15	74	13:45		496	1950	531	2055
2:00	15		13		14:00		493		514	
2:15	16		12		14:15		485		523	
2:30	12		12		14:30		487		513	
2:45	11	54	13	50	14:45		501	1966	512	2062
3:00	13		14		15:00		503		501	
3:15	15		22		15:15		504		506	
3:30	16		19		15:30		499		503	
3:45	28	72	23	78	15:45		485	1991	514	2024
4:00	25		21		16:00		485		535	
4:15	29		19		16:15		501		564	
4:30	41		17		16:30		490		501	
4:45	68	163	54	111	16:45		477	1953	600	2200
5:00	69		55		17:00		438		522	
5:15	79		71		17:15		535		600	
5:30	151		115		17:30		614		460	
5:45	156	455	129	370	17:45		460	2047	582	2164
6:00	175		126		18:00		425		561	
6:15	271		224		18:15		442		521	
6:30	301		229		18:30		401		501	
6:45	306	1053	262	841	18:45		416	1684	450	2033
7:00	293		274		19:00		401		403	
7:15	378		317		19:15		362		401	
7:30	465		426		19:30		368		415	
7:45	518	1654	405	1422	19:45		352	1483	421	1640
8:00	443		445		20:00		231		381	
8:15	447		470		20:15		215		305	
8:30	441		339		20:30		201		225	
8:45	511	1842	389	1643	20:45		181	828	205	1116
9:00	492		406		21:00		175		161	
9:15	485		416		21:15		128		152	
9:30	462		402		21:30		101		142	
9:45	415	1854	403	1627	21:45		95	499	92	547
10:00	425		392		22:00		94		89	
10:15	413		398		22:15		93		88	
10:30	411		401		22:30		81		72	
10:45	432	1681	402	1593	22:45		72	340	71	320
11:00	412		425		23:00		55		59	
11:15	402		423		23:15		51		38	
11:30	406		461		23:30		41		32	
11:45	421	1641	469	1778	23:45		38	185	31	160

Total Vol.	10609	9694	20303		16751	18140	34891
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Daily Totals

EB	WB	Combined
27360	27834	55194

AM

PM

Split %	52.3%	47.7%	36.8%		48.0%	52.0%	63.2%
Peak Hour	8:45	11:45	7:30		16:45	16:30	16:45
Volume	1950	1825	3619		2064	2223	4246
P.H.F.	0.95	0.97	0.98		0.84	0.93	0.94

ADT3 Crown Valley between Cabot and Greenfield_TU.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	EB		WB		PM Period		EB		WB	
0:00	15		19		12:00		315		398	
0:15	13		15		12:15		362		405	
0:30	17		18		12:30		398		426	
0:45	12	57	14	66	12:45		355	1430	444	3103
1:00	10		11		13:00		321		350	
1:15	8		12		13:15		345		325	
1:30	6		10		13:30		334		301	
1:45	9	33	5	38	13:45		329	1329	306	2611
2:00	7		4		14:00		281		301	
2:15	9		6		14:15		321		328	
2:30	7		5		14:30		355		334	
2:45	7	30	9	24	14:45		354	1311	341	2615
3:00	6		8		15:00		345		342	
3:15	5		6		15:15		355		338	
3:30	11		7		15:30		399		334	
3:45	13	35	11	32	15:45		372	1471	389	2874
4:00	12		9		16:00		418		364	
4:15	19		11		16:15		423		429	
4:30	25		14		16:30		402		434	
4:45	49	105	15	49	16:45		414	1657	482	3366
5:00	51		35		17:00		358		414	
5:15	61		45		17:15		392		468	
5:30	101		78		17:30		381		463	
5:45	115	328	101	259	17:45		411	1542	434	3321
6:00	151		115		18:00		401		401	
6:15	201		125		18:15		394		405	
6:30	221		225		18:30		352		415	
6:45	248	821	228	693	18:45		298	1445	401	3067
7:00	247		247		19:00		258		350	
7:15	308		290		19:15		264		325	
7:30	439		377		19:30		225		289	
7:45	403	1397	388	1302	19:45		221	968	250	2182
8:00	353		344		20:00		220		215	
8:15	394		433		20:15		178		214	
8:30	390		319		20:30		154		201	
8:45	322	1459	361	1457	20:45		133	685	154	1469
9:00	304		350		21:00		112		132	
9:15	295		381		21:15		113		115	
9:30	294		352		21:30		101		102	
9:45	291	1184	338	1421	21:45		77	403	75	827
10:00	299		350		22:00		64		48	
10:15	293		321		22:15		61		58	
10:30	288		315		22:30		60		51	
10:45	299	1179	319	1305	22:45		51	236	50	443
11:00	287		327		23:00		41		38	
11:15	305		331		23:15		38		35	
11:30	308		325		23:30		35		33	
11:45	371	1271	372	1355	23:45		24	138	28	272

Total Vol.	7899	8001	15900		12615	13535	26150
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Daily Totals

EB	WB	Combined
20514	21536	42050

AM

PM

Split %	49.7%	50.3%	37.8%		48.2%	51.8%	62.2%
Peak Hour	7:30	11:45	7:30		16:00	16:45	16:45
Volume	1589	1601	3131		1657	1827	3372
P.H.F.	0.90	0.94	0.95		0.98	0.95	0.94

ADT3 Crown Valley between Cabot and Greenfield_WE.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	EB		WB		PM Period		EB		WB	
0:00	11		19		12:00		201		398	
0:15	12		15		12:15		351		405	
0:30	15		18		12:30		358		426	
0:45	13	51	14	66	12:45		367	1277	444	1673
1:00	11		11		13:00		359		350	
1:15	9		12		13:15		365		325	
1:30	8		10		13:30		345		301	
1:45	11	39	5	38	13:45		331	1400	306	1282
2:00	8		4		14:00		298		301	
2:15	11		6		14:15		299		328	
2:30	5		5		14:30		345		334	
2:45	9	33	9	24	14:45		344	1286	341	1304
3:00	7		8		15:00		341		342	
3:15	6		6		15:15		339		338	
3:30	9		7		15:30		345		334	
3:45	11	33	11	32	15:45		358	1383	389	1403
4:00	10		9		16:00		405		403	
4:15	15		11		16:15		383		476	
4:30	18		14		16:30		393		430	
4:45	33	76	15	49	16:45		401	1582	460	1769
5:00	47		35		17:00		386		410	
5:15	58		45		17:15		407		479	
5:30	105		78		17:30		409		412	
5:45	114	324	101	259	17:45		371	1573	442	1743
6:00	152		115		18:00		398		401	
6:15	199		125		18:15		399		405	
6:30	225		225		18:30		401		415	
6:45	238	814	228	693	18:45		333	1531	401	1622
7:00	245		241		19:00		351		350	
7:15	322		273		19:15		289		325	
7:30	383		410		19:30		225		289	
7:45	477	1427	368	1292	19:45		265	1130	250	1214
8:00	359		388		20:00		245		215	
8:15	374		422		20:15		241		214	
8:30	382		303		20:30		158		201	
8:45	343	1458	368	1481	20:45		168	812	154	784
9:00	301		350		21:00		115		132	
9:15	302		381		21:15		118		115	
9:30	306		352		21:30		119		102	
9:45	300	1209	338	1421	21:45		88	440	75	424
10:00	285		350		22:00		81		48	
10:15	284		321		22:15		74		58	
10:30	291		315		22:30		81		51	
10:45	295	1155	319	1305	22:45		50	286	50	207
11:00	290		327		23:00		51		38	
11:15	299		331		23:15		44		35	
11:30	258		325		23:30		41		33	
11:45	299	1146	372	1355	23:45		31	167	28	134

Total Vol.	7765	8015	15780		12867	13559	26426
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Daily Totals

EB	WB	Combined
20632	21574	42206

AM

PM

Split %	49.2%	50.8%	37.4%		48.7%	51.3%	62.6%
Peak Hour	7:30	11:45	7:30		16:45	16:30	16:30
Volume	1593	1601	3181		1603	1779	3366
P.H.F.	0.83	0.94	0.94		0.98	0.93	0.95

ADT4 Cabot Road between Costco Driveway and Skye driveway.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB		SB			PM Period	NB		SB		
0:00	6		6			12:00	119		87		
0:15	3		11			12:15	111		97		
0:30	3		7			12:30	125		109		
0:45	5	17	6	30	47	12:45	119	474	119	412	886
1:00	2		9			13:00	113		105		
1:15	2		5			13:15	118		118		
1:30	0		2			13:30	123		124		
1:45	1	5	7	23	28	13:45	129	483	121	468	951
2:00	1		3			14:00	106		107		
2:15	3		9			14:15	106		126		
2:30	5		0			14:30	98		114		
2:45	2	11	3	15	26	14:45	150	460	137	484	944
3:00	4		3			15:00	142		149		
3:15	3		2			15:15	141		137		
3:30	6		3			15:30	148		167		
3:45	7	20	5	13	33	15:45	146	577	155	608	1185
4:00	11		0			16:00	137		144		
4:15	8		0			16:15	146		142		
4:30	10		5			16:30	144		164		
4:45	23	52	5	10	62	16:45	123	550	153	603	1153
5:00	15		4			17:00	144		140		
5:15	26		4			17:15	202		180		
5:30	34		9			17:30	140		146		
5:45	48	123	14	31	154	17:45	121	607	159	625	1232
6:00	22		14			18:00	104		114		
6:15	60		28			18:15	91		112		
6:30	83		36			18:30	91		123		
6:45	75	240	37	115	355	18:45	88	374	101	450	824
7:00	105		54			19:00	83		108		
7:15	154		85			19:15	55		101		
7:30	137		100			19:30	62		83		
7:45	176	572	146	385	957	19:45	59	259	83	375	634
8:00	148		136			20:00	54		77		
8:15	133		122			20:15	40		62		
8:30	171		98			20:30	44		76		
8:45	151	603	99	455	1058	20:45	37	175	60	275	450
9:00	102		82			21:00	25		46		
9:15	115		76			21:15	35		54		
9:30	116		79			21:30	20		49		
9:45	124	457	74	311	768	21:45	25	105	49	198	303
10:00	112		78			22:00	15		34		
10:15	131		81			22:15	8		33		
10:30	120		82			22:30	18		35		
10:45	119	482	85	326	808	22:45	14	55	32	134	189
11:00	108		96			23:00	14		10		
11:15	130		93			23:15	12		16		
11:30	107		107			23:30	8		17		
11:45	139	484	81	377	861	23:45	6	40	9	52	92
Total Vol.	3066		2091		5157		4159		4684		8843
						Daily Totals				Combined	
						NB		SB			
						7225		6775		14000	

AM				PM			
Split %	59.5%	40.5%	36.8%	47.0%	53.0%	63.2%	
Peak Hour	7:45	7:30	7:45	16:30	16:30	16:30	
Volume	628	504	1130	613	637	1250	
P.H.F.	0.89	0.86	0.88	0.96	0.88	0.82	

ADT4 Cabot Road between Costco Driveway and Skye driveway.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB		SB			PM Period	NB		SB		
0:00	3		12			12:00	123		110		
0:15	4		6			12:15	112		110		
0:30	5		11			12:30	114		87		
0:45	5	17	6	35	52	12:45	128	477	111	418	895
1:00	2		10			13:00	107		97		
1:15	5		7			13:15	117		119		
1:30	2		1			13:30	125		104		
1:45	1	10	6	24	34	13:45	114	463	110	430	893
2:00	3		4			14:00	112		110		
2:15	2		1			14:15	104		111		
2:30	1		4			14:30	121		121		
2:45	3	9	1	10	19	14:45	108	445	141	483	928
3:00	3		5			15:00	126		150		
3:15	4		1			15:15	141		148		
3:30	10		2			15:30	163		153		
3:45	7	24	9	17	41	15:45	151	581	140	591	1172
4:00	5		2			16:00	122		149		
4:15	6		3			16:15	134		154		
4:30	11		1			16:30	149		161		
4:45	23	45	3	9	54	16:45	133	538	163	627	1165
5:00	14		2			17:00	141		150		
5:15	25		9			17:15	189		170		
5:30	31		10			17:30	150		156		
5:45	45	115	10	31	146	17:45	133	613	143	619	1232
6:00	41		18			18:00	124		117		
6:15	61		31			18:15	104		124		
6:30	72		32			18:30	97		119		
6:45	72	246	33	114	360	18:45	89	414	105	465	879
7:00	113		58			19:00	74		103		
7:15	128		104			19:15	67		103		
7:30	159		89			19:30	54		96		
7:45	176	576	157	408	984	19:45	59	254	74	376	630
8:00	160		103			20:00	43		68		
8:15	145		106			20:15	40		86		
8:30	146		83			20:30	34		73		
8:45	121	572	88	380	952	20:45	33	150	62	289	439
9:00	106		83			21:00	25		58		
9:15	112		74			21:15	26		61		
9:30	124		93			21:30	30		38		
9:45	111	453	70	320	773	21:45	20	101	44	201	302
10:00	129		80			22:00	19		38		
10:15	118		79			22:15	14		23		
10:30	100		73			22:30	18		25		
10:45	115	462	96	328	790	22:45	13	64	22	108	172
11:00	102		75			23:00	11		26		
11:15	101		101			23:15	12		26		
11:30	116		90			23:30	11		13		
11:45	112	431	109	375	806	23:45	7	41	8	73	114
Total Vol.	2960		2051		5011		4141		4680		8821
						Daily Totals				Combined	
						NB		SB			
						7101		6731		13832	
AM						PM					
Split %	59.1%		40.9%		36.2%		46.9%		53.1%		63.8%
Peak Hour	7:30		7:30		7:30		16:45		16:30		16:30
Volume	640		455		1095		613		644		1256
P.H.F.	0.91		0.72		0.82		0.86		0.95		0.87

ADT5 Cabot Road between Cabot and Rapid Falls Road.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB		SB			PM Period	NB		SB		
0:00	4		2			12:00	128		167		
0:15	2		5			12:15	129		117		
0:30	2		2			12:30	178		130		
0:45	3	11	3	12	23	12:45	186	621	110	524	1145
1:00	4		1			13:00	130		119		
1:15	2		0			13:15	147		127		
1:30	1		3			13:30	156		141		
1:45	0	7	7	11	18	13:45	132	565	137	524	1089
2:00	2		2			14:00	132		119		
2:15	1		0			14:15	127		141		
2:30	1		1			14:30	140		127		
2:45	2	6	1	4	10	14:45	145	544	178	565	1109
3:00	2		2			15:00	167		124		
3:15	1		3			15:15	146		134		
3:30	2		3			15:30	192		178		
3:45	2	7	4	12	19	15:45	166	671	172	608	1279
4:00	2		5			16:00	165		150		
4:15	3		2			16:15	171		159		
4:30	2		6			16:30	167		162		
4:45	14	21	11	24	45	16:45	169	672	169	640	1312
5:00	9		6			17:00	158		170		
5:15	11		10			17:15	179		182		
5:30	12		16			17:30	163		164		
5:45	16	48	31	63	111	17:45	122	622	150	666	1288
6:00	19		13			18:00	139		150		
6:15	19		28			18:15	123		148		
6:30	37		32			18:30	108		137		
6:45	47	122	35	108	230	18:45	94	464	89	524	988
7:00	76		70			19:00	105		108		
7:15	111		93			19:15	92		81		
7:30	156		127			19:30	54		70		
7:45	196	539	175	465	1004	19:45	59	310	75	334	644
8:00	165		165			20:00	71		53		
8:15	153		133			20:15	58		39		
8:30	140		124			20:30	40		54		
8:45	136	594	119	541	1135	20:45	32	201	47	193	394
9:00	76		106			21:00	41		40		
9:15	96		83			21:15	37		33		
9:30	95		81			21:30	23		28		
9:45	107	374	109	379	753	21:45	28	129	21	122	251
10:00	85		105			22:00	22		15		
10:15	93		91			22:15	15		26		
10:30	124		89			22:30	12		17		
10:45	108	410	102	387	797	22:45	6	55	12	70	125
11:00	110		139			23:00	5		11		
11:15	109		122			23:15	6		5		
11:30	109		122			23:30	7		8		
11:45	135	463	136	519	982	23:45	4	22	7	31	53
Total Vol.	2602		2525		5127		4876		4801		9677
						Daily Totals				Combined	
						NB		SB			
						7478		7326			14804

AM

PM

Split %	50.8%	49.2%	34.6%		50.4%	49.6%	65.4%
Peak Hour	7:30	7:30	7:30		15:30	16:45	16:30
Volume	670	600	1270		694	685	1356
P.H.F.	0.85	0.86	0.86		0.90	0.94	0.94

ADT5 Cabot Road between Cabot and Rapid Falls Road.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB		SB			PM Period	NB		SB		
0:00	1		5			12:00	141		110		
0:15	1		4			12:15	120		134		
0:30	6		6			12:30	127		139		
0:45	3	11	1	16	27	12:45	139	527	139	522	1049
1:00	2		5			13:00	137		133		
1:15	2		6			13:15	141		156		
1:30	1		0			13:30	101		130		
1:45	0	5	1	12	17	13:45	131	510	158	577	1087
2:00	2		2			14:00	117		143		
2:15	1		2			14:15	132		141		
2:30	3		1			14:30	123		130		
2:45	1	7	1	6	13	14:45	166	538	133	547	1085
3:00	2		4			15:00	150		165		
3:15	4		3			15:15	146		161		
3:30	3		0			15:30	155		162		
3:45	5	14	1	8	22	15:45	171	622	191	679	1301
4:00	3		0			16:00	155		170		
4:15	3		3			16:15	181		176		
4:30	2		7			16:30	179		169		
4:45	10	18	12	22	40	16:45	160	675	165	680	1355
5:00	6		8			17:00	178		173		
5:15	1		10			17:15	192		154		
5:30	8		9			17:30	193		151		
5:45	26	41	22	49	90	17:45	142	705	154	632	1337
6:00	22		22			18:00	190		138		
6:15	31		30			18:15	150		125		
6:30	32		23			18:30	105		107		
6:45	24	109	39	114	223	18:45	88	533	89	459	992
7:00	71		71			19:00	85		70		
7:15	98		101			19:15	85		63		
7:30	115		155			19:30	78		59		
7:45	155	439	175	502	941	19:45	61	309	74	266	575
8:00	164		134			20:00	58		56		
8:15	104		163			20:15	56		60		
8:30	111		117			20:30	50		38		
8:45	134	513	108	522	1035	20:45	47	211	42	196	407
9:00	107		89			21:00	30		37		
9:15	94		87			21:15	35		23		
9:30	111		109			21:30	30		25		
9:45	104	416	98	383	799	21:45	20	115	17	102	217
10:00	112		100			22:00	25		18		
10:15	111		102			22:15	16		21		
10:30	105		90			22:30	23		10		
10:45	123	451	96	388	839	22:45	7	71	13	62	133
11:00	106		104			23:00	11		7		
11:15	130		100			23:15	7		7		
11:30	101		115			23:30	14		3		
11:45	139	476	124	443	919	23:45	10	42	5	22	64
Total Vol.	2500		2465		4965		4858		4744		9602
						Daily Totals				Combined	
						NB		SB			
						7358		7209			14567
AM						PM					
Split %	50.4%	49.6%		34.1%		50.6%	49.4%			65.9%	
Peak Hour	7:30	7:30		7:30		16:45	15:45			15:45	
Volume	538	627		1165		723	706			1392	
P.H.F.	0.82	0.90		0.88		0.94	0.92			0.96	

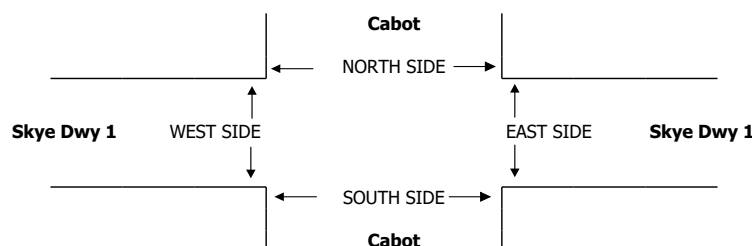
DATE: Tue, Nov 2, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Nigel Cabot Skye Dwy 1	PROJECT #: LOCATION #: CONTROL:	SC3149 1 NO CONTROL
NOTES:			AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Skye Dwy 1			Skye Dwy 1			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	2	0	1	2	X	X	X	X	0	X	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	
	7:15 AM	0	0	3	1	0	0	0	0	4	0	0	8	
	7:30 AM	0	0	3	1	0	0	0	0	4	0	3	11	
	7:45 AM	0	0	2	2	0	0	0	0	5	0	3	12	
	8:00 AM	0	0	2	0	0	0	0	0	3	0	1	6	
	8:15 AM	0	0	2	1	0	0	0	0	4	0	2	9	
	8:30 AM	0	0	1	1	0	0	0	0	3	0	0	5	
	8:45 AM	0	0	2	0	0	0	0	0	3	0	0	5	
	VOLUMES	0	0	15	6	0	0	0	0	0	27	0	9	57
	APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	25%	
APP/DEPART	15	/	9	6	/	27	0	/	21	36	/	0	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	0	0	9	4	0	0	0	0	0	16	0	9	38	
APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	64%	0%	36%		
PEAK HR FACTOR	0.750			0.500			0.000			0.781			0.792	
APP/DEPART	9	/	9	4	/	16	0	/	13	25	/	0	0	
PM	4:00 PM	0	0	2	0	0	0	0	0	0	0	0	2	
	4:15 PM	0	0	8	2	0	0	0	0	4	0	0	14	
	4:30 PM	0	0	7	3	0	0	0	0	2	0	1	13	
	4:45 PM	0	0	11	2	0	0	0	0	4	0	0	17	
	5:00 PM	0	0	3	2	0	0	0	0	2	0	0	7	
	5:15 PM	0	0	5	2	0	0	0	0	1	0	0	8	
	5:30 PM	0	0	5	3	0	0	0	0	7	0	2	17	
	5:45 PM	0	0	10	2	0	0	0	0	3	0	0	15	
	VOLUMES	0	0	51	16	0	0	0	0	0	23	0	3	93
	APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	88%	0%	12%	
APP/DEPART	51	/	3	16	/	23	0	/	67	26	/	0	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	0	0	29	9	0	0	0	0	0	12	0	1	51	
APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	92%	0%	8%		
PEAK HR FACTOR	0.659			0.750			0.000			0.813			0.750	
APP/DEPART	29	/	1	9	/	12	0	/	38	13	/	0	0	

[illegible]

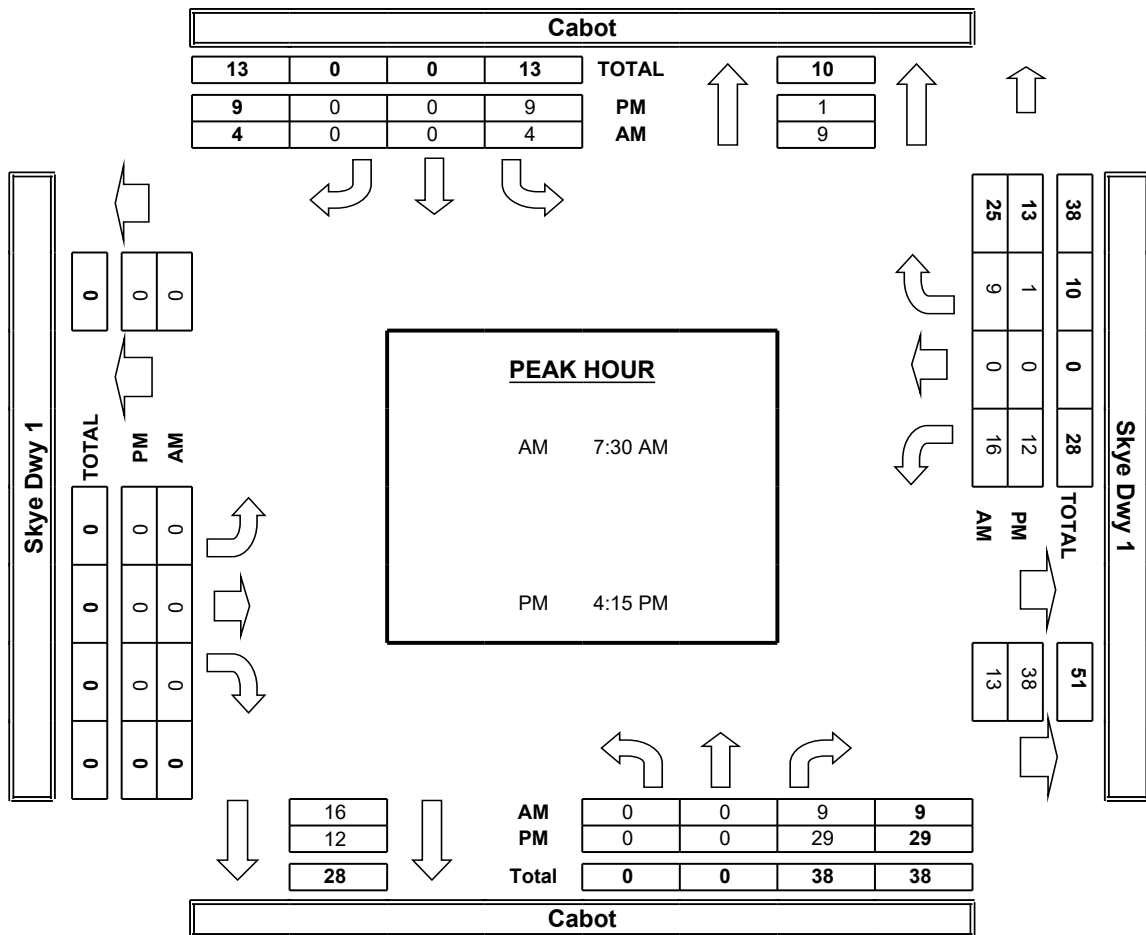
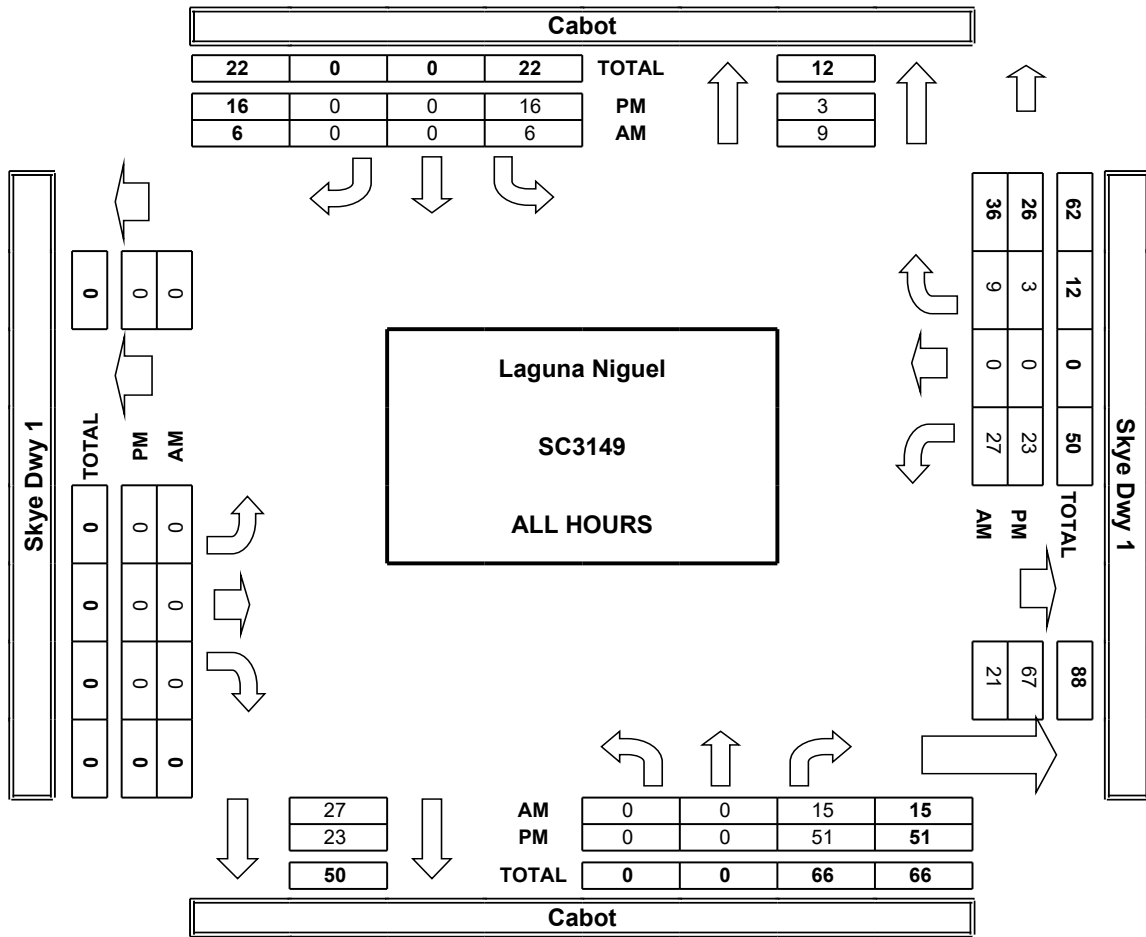
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
TOTAL	
AM BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
TOTAL	
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	2	0	2
0	0	2	0	2
0	0	8	0	8
7:30 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	5	0	5
0	0	2	0	2
0	0	7	0	7
4:15 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	2	0	2
0	0	2	0	2
0	0	8	0	8
0	0	3	0	3
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	5	0	5
0	0	2	0	2
0	0	7	0	7
0	0	0	0	0

[illegible]

AimTD LLC
TURNING MOVEMENT COUNTS

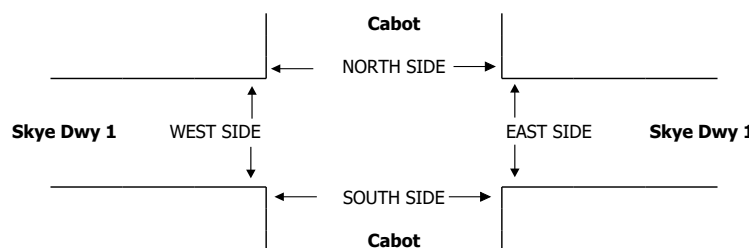


DATE: Wed, Nov 3, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Nigel Cabot Skye Dwy 1	PROJECT #: LOCATION #: CONTROL:	SC3149 1 NO CONTROL		
NOTES:			AM		▲	
			PM		N	
			MD	◀ W		E ▶
			OTHER		S	
			OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Skye Dwy 1			Skye Dwy 1			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	2	0	1	2	X	X	X	X	0	X	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	0	2	0	0	0	0	0	0	1	0	0	3
	7:15 AM	0	0	3	0	0	0	0	0	0	4	0	0	7
	7:30 AM	0	0	2	0	0	0	0	0	0	2	0	3	7
	7:45 AM	0	0	3	2	0	0	0	0	0	7	0	3	15
	8:00 AM	0	0	5	1	0	0	0	0	0	4	0	1	11
	8:15 AM	0	0	3	0	0	0	0	0	0	2	0	1	6
	8:30 AM	0	0	3	0	0	0	0	0	0	2	0	0	5
	8:45 AM	0	0	4	0	0	0	0	0	0	3	0	0	7
	VOLUMES	0	0	25	3	0	0	0	0	0	25	0	8	61
	APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	76%	0%	24%	
APP/DEPART	25	/	8	3	/	25	0	/	28	33	/	0	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	0	13	3	0	0	0	0	0	17	0	7	40	
APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	71%	0%	29%		
PEAK HR FACTOR	0.650													
APP/DEPART	13	/	7	3	/	17	0	/	16	24	/	0	0	
PM	4:00 PM	0	0	5	2	0	0	0	0	0	4	0	1	12
	4:15 PM	0	0	7	1	0	0	0	0	0	6	0	2	16
	4:30 PM	0	0	5	3	0	0	0	0	0	1	0	1	10
	4:45 PM	0	0	5	7	0	0	0	0	0	2	0	1	15
	5:00 PM	0	0	3	4	0	0	0	0	0	1	0	1	9
	5:15 PM	0	0	8	1	0	0	0	0	0	5	0	0	14
	5:30 PM	0	0	6	0	0	0	0	0	0	9	0	0	15
	5:45 PM	0	0	4	3	0	0	0	0	0	4	0	2	13
	VOLUMES	0	0	43	21	0	0	0	0	0	32	0	8	104
	APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	80%	0%	20%	
APP/DEPART	43	/	8	21	/	32	0	/	64	40	/	0	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	0	0	22	12	0	0	0	0	0	17	0	2	53	
APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	89%	0%	11%		
PEAK HR FACTOR	0.688													
APP/DEPART	22	/	2	12	/	17	0	/	34	19	/	0	0	

[illegible][illegible]

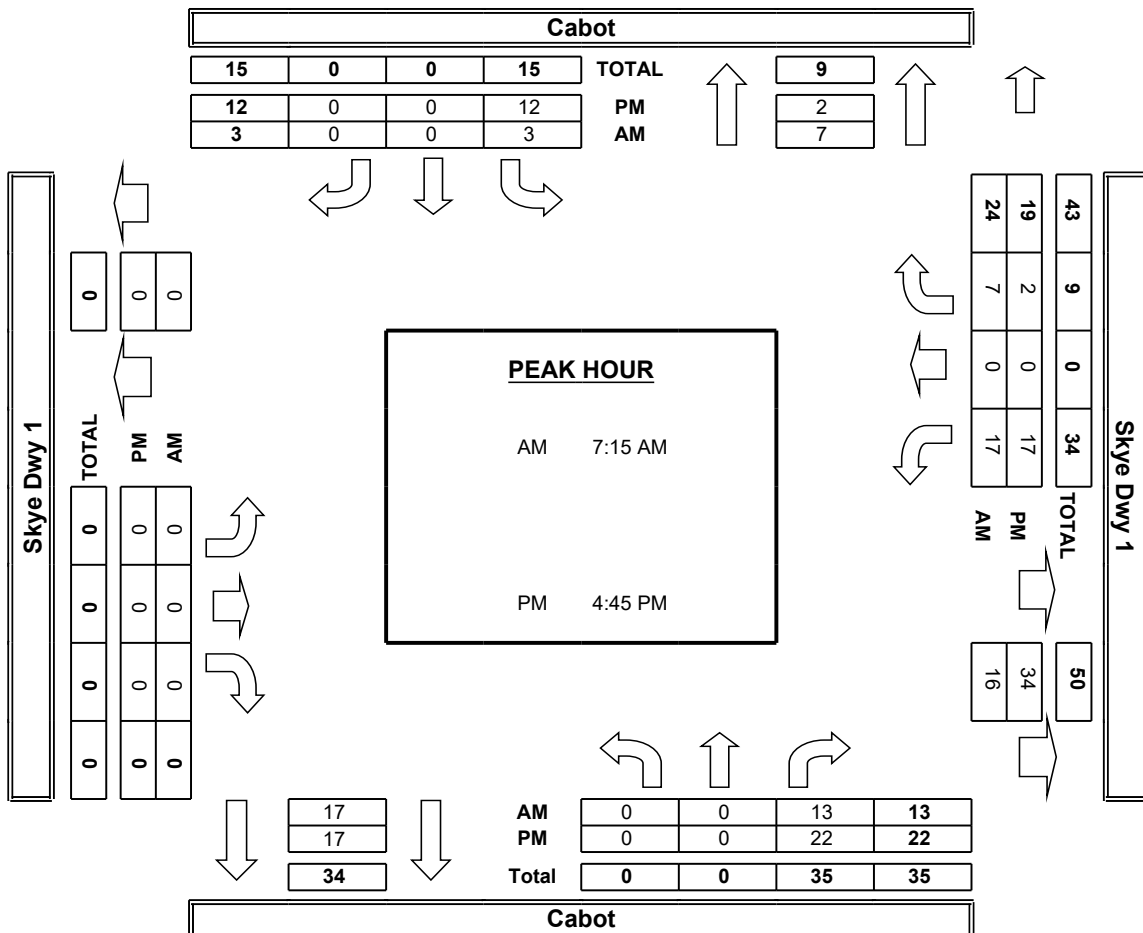
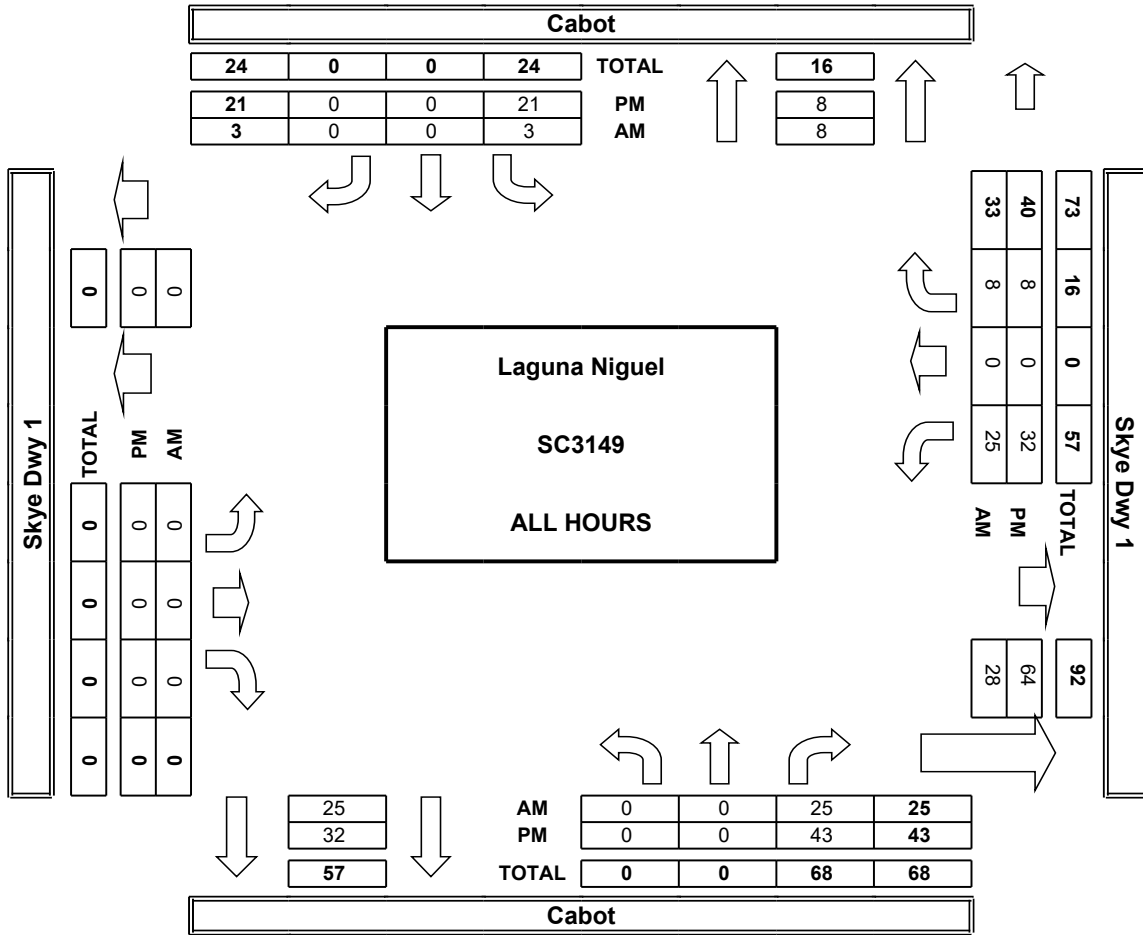
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
TOTAL	
AM BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
TOTAL	
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	4	0	4
7:15 AM				
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	4	0	4
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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	3	0	3
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
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	4	0	4
0	0	1	0	1

[illegible]

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: I-5 NB Ramps
Crown Valley

PROJECT #: SC3149
LOCATION #: 1
CONTROL: SIGNAL

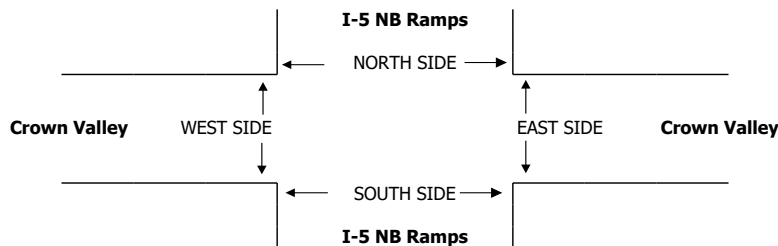
NOTES:					AM PM MD OTHER OTHER	◀ W S ▶	▲ N S ▼	E ▶
Queue EB/WB AM/PM; Minor Construction EB								

☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-5 NB Ramps			I-5 NB Ramps			Crown Valley			Crown Valley			
LANES:	NL 1.5	NT X	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 2.5	WR 1.5	TOTAL
7:00 AM	36	0	38	0	0	0	0	249	209	0	168	233	933
7:15 AM	35	0	62	0	0	0	0	328	196	0	245	283	1,149
7:30 AM	33	0	87	0	0	0	0	423	195	0	312	334	1,384
7:45 AM	50	0	116	0	0	0	0	498	175	0	315	352	1,506
8:00 AM	52	0	100	0	0	0	0	395	169	0	304	311	1,331
8:15 AM	51	0	111	0	0	0	0	432	192	0	295	265	1,346
8:30 AM	41	0	89	0	0	0	0	443	179	0	291	268	1,311
8:45 AM	34	0	110	0	0	0	0	475	178	0	261	236	1,294
VOLUMES	332	0	713	0	0	0	0	3,243	1,493	0	2,191	2,282	10,254
APPROACH %	32%	0%	68%	0%	0%	0%	0%	68%	32%	0%	49%	51%	
APP/DEPART	1,045	/	2,282	0	/	1,493	4,736	/	3,956	4,473	/	2,523	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	186	0	414	0	0	0	0	1,748	731	0	1,226	1,262	5,567
APPROACH %	31%	0%	69%	0%	0%	0%	0%	71%	29%	0%	49%	51%	
PEAK HR FACTOR	0.904			0.000			0.921			0.933			0.924
APP/DEPART	600	/	1,262	0	/	731	2,479	/	2,162	2,488	/	1,412	0
4:00 PM	46	0	84	0	0	0	0	525	167	0	387	263	1,472
4:15 PM	65	0	119	0	0	0	0	505	184	0	345	256	1,474
4:30 PM	64	0	105	0	0	0	0	451	159	0	363	302	1,444
4:45 PM	54	0	104	0	0	0	0	489	163	0	337	279	1,426
5:00 PM	49	0	101	0	0	0	0	465	135	0	375	303	1,428
5:15 PM	53	0	86	0	0	0	0	505	163	0	405	310	1,522
5:30 PM	55	0	83	0	0	0	0	524	149	0	367	294	1,472
5:45 PM	47	0	92	0	0	0	0	541	161	0	302	254	1,397
VOLUMES	433	0	774	0	0	0	0	4,005	1,281	0	2,881	2,261	11,635
APPROACH %	36%	0%	64%	0%	0%	0%	0%	76%	24%	0%	56%	44%	
APP/DEPART	1,207	/	2,261	0	/	1,281	5,286	/	4,779	5,142	/	3,314	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	211	0	374	0	0	0	0	1,983	610	0	1,484	1,186	5,848
APPROACH %	36%	0%	64%	0%	0%	0%	0%	76%	24%	0%	56%	44%	
PEAK HR FACTOR	0.926			0.000			0.963			0.934			0.961
APP/DEPART	585	/	1,186	0	/	610	2,593	/	2,357	2,670	/	1,695	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	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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



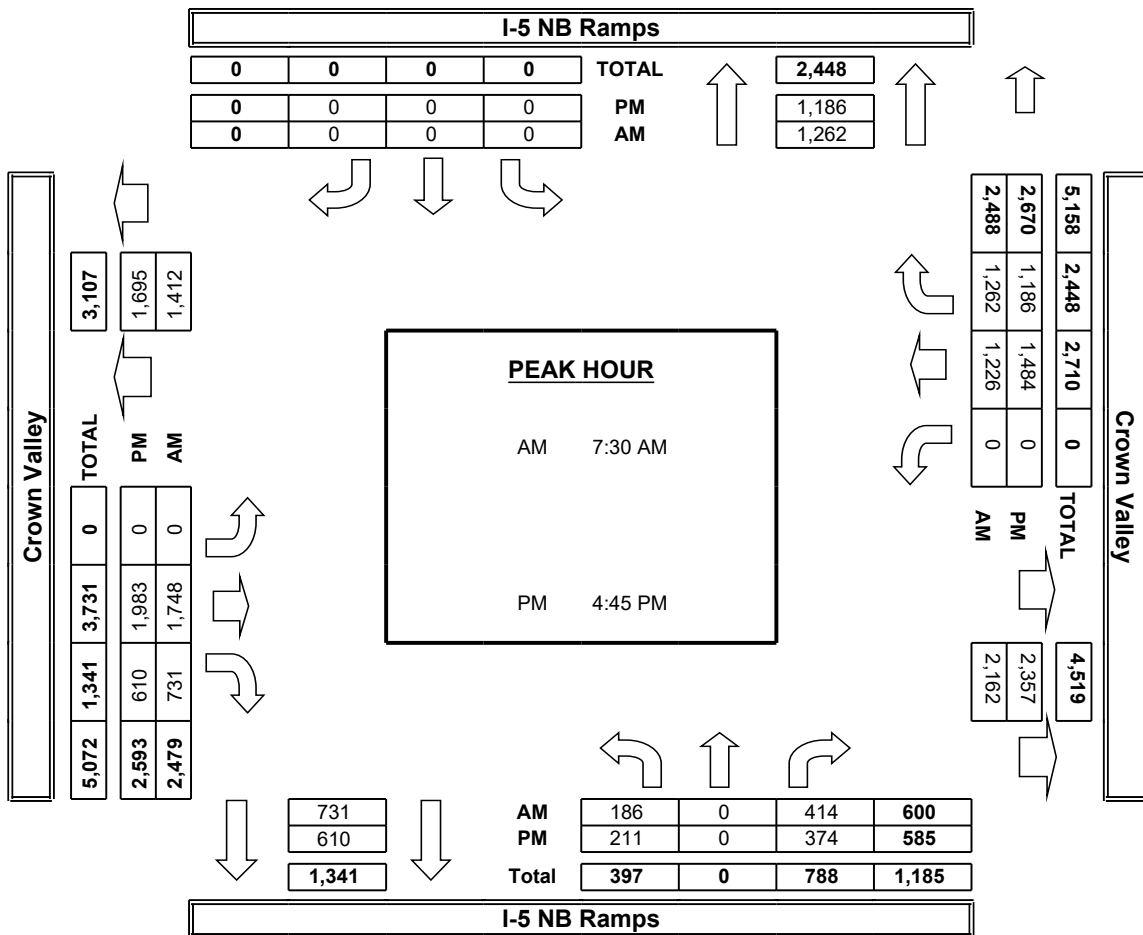
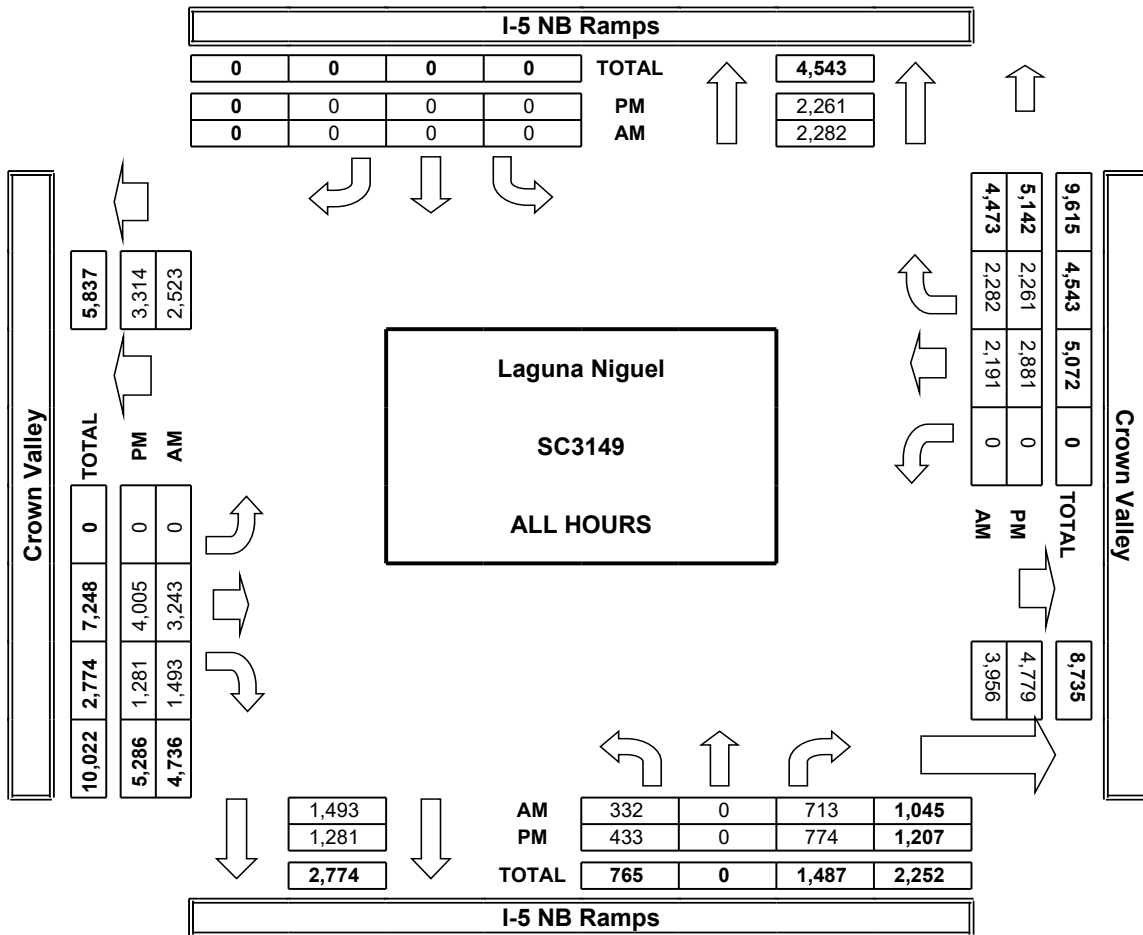
	AM	PM
7:00 AM		
7:15 AM		
7:30 AM		
7:45 AM		
8:00 AM		
8:15 AM		
8:30 AM		
8:45 AM		
TOTAL		
AM BEGIN PEAK HR		
4:00 PM		
4:15 PM		
4:30 PM		
4:45 PM		
5:00 PM		
5:15 PM		
5:30 PM		
5:45 PM		
TOTAL		
PM BEGIN PEAK HR		

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	5	0	0	5
7:30 AM				
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	4	0	0	4
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	0	0	1
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	0	1
0	1	0	0	1
0	0	0	0	0
0	3	0	0	3
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	2	0	0	2

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: I-5 NB Ramps
Crown Valley

PROJECT #: SC3149
LOCATION #: 1
CONTROL: SIGNAL

NOTES:	Queue EB/WB AM/PM; Minor Construction EB	AM		▲	
		PM		N	
		MD	◀ W		E ▶
		OTHER		S	

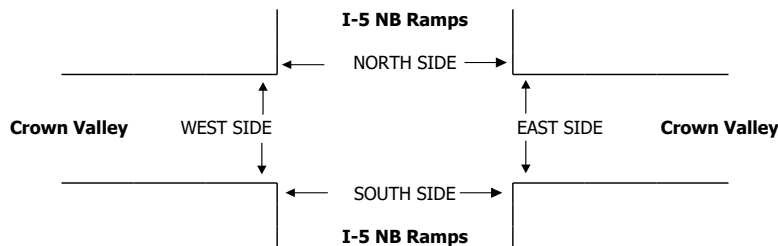
☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-5 NB Ramps			I-5 NB Ramps			Crown Valley			Crown Valley			
LANES:	NL 1.5	NT X	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 2.5	WR 1.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	27	0	48	0	0	0	0	213	184	0	154	283	909
	7:15 AM	31	0	59	0	0	0	0	361	200	0	201	290	1,142
	7:30 AM	50	0	87	0	0	0	0	419	201	0	301	286	1,344
	7:45 AM	68	0	111	0	0	0	0	513	161	0	300	291	1,444
	8:00 AM	53	0	90	0	0	0	0	438	152	0	367	283	1,383
	8:15 AM	53	0	100	0	0	0	0	447	157	0	335	249	1,341
	8:30 AM	50	0	84	0	0	0	0	443	178	0	233	229	1,217
	8:45 AM	50	0	95	0	0	0	0	498	167	0	235	212	1,257
	VOLUMES	382	0	674	0	0	0	0	3,332	1,400	0	2,126	2,123	10,037
	APPROACH %	36%	0%	64%	0%	0%	0%	0%	70%	30%	0%	50%	50%	
PM	APP/DEPART	1,056	/	2,123	0	/	1,400	4,732	/	4,006	4,249	/	2,508	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	224	0	388	0	0	0	0	1,817	671	0	1,303	1,109	5,512
	APPROACH %	37%	0%	63%	0%	0%	0%	0%	73%	27%	0%	54%	46%	
	PEAK HR FACTOR	0.855			0.000			0.923			0.928			0.954
	APP/DEPART	612	/	1,109	0	/	671	2,488	/	2,205	2,412	/	1,527	0
	4:00 PM	74	0	140	0	0	0	0	475	174	0	330	308	1,501
	4:15 PM	69	0	100	0	0	0	0	509	183	0	396	256	1,513
	4:30 PM	55	0	104	0	0	0	0	500	172	0	335	292	1,458
	4:45 PM	65	0	104	0	0	0	0	513	156	0	377	270	1,485
	5:00 PM	54	0	79	0	0	0	0	486	145	0	361	335	1,460
	5:15 PM	66	0	96	0	0	0	0	502	173	0	401	271	1,509
	5:30 PM	34	0	108	0	0	0	0	498	142	0	319	323	1,424
	5:45 PM	37	0	104	0	0	0	0	539	134	0	361	231	1,406
	VOLUMES	454	0	835	0	0	0	0	4,022	1,279	0	2,880	2,286	11,756
	APPROACH %	35%	0%	65%	0%	0%	0%	0%	76%	24%	0%	56%	44%	
	APP/DEPART	1,289	/	2,286	0	/	1,279	5,301	/	4,857	5,166	/	3,334	0
	BEGIN PEAK HR	4:00 PM												
	VOLUMES	263	0	448	0	0	0	0	1,997	685	0	1,438	1,126	5,957
	APPROACH %	37%	0%	63%	0%	0%	0%	0%	74%	26%	0%	56%	44%	
	PEAK HR FACTOR	0.831			0.000			0.969			0.983			0.984
	APP/DEPART	711	/	1,126	0	/	685	2,682	/	2,445	2,564	/	1,701	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



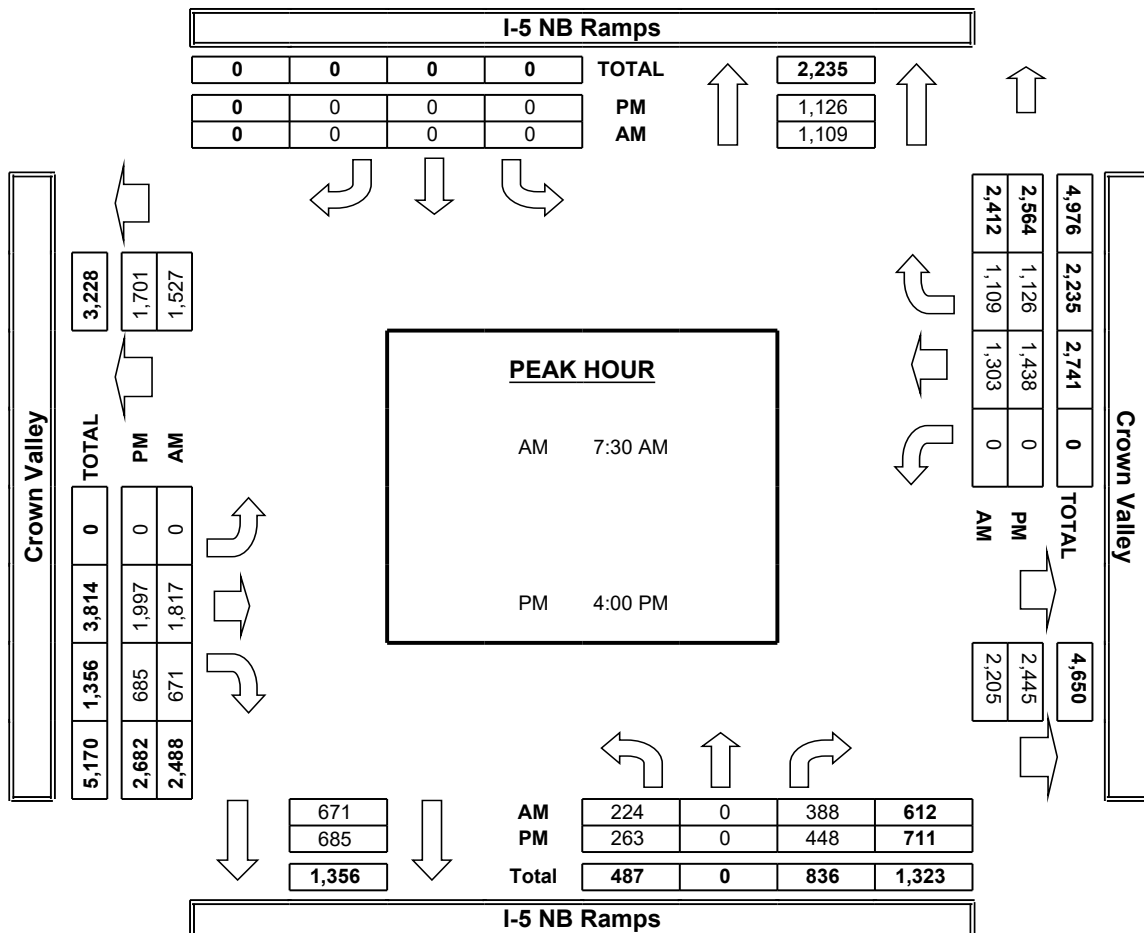
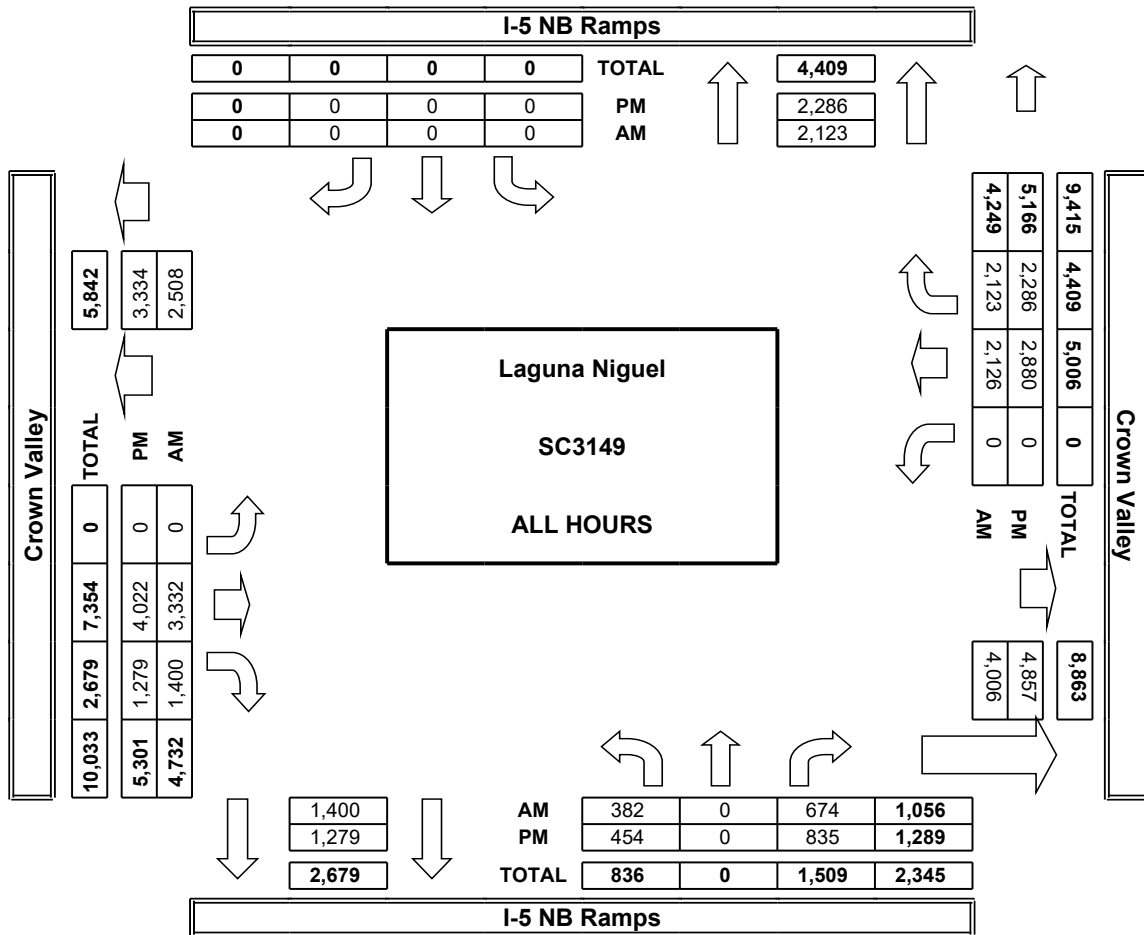
AM	7:00 AM	0	0	0	0
	7:15 AM	0	1	0	0
	7:30 AM	0	2	0	0
	7:45 AM	0	0	0	0
	8:00 AM	0	1	0	0
	8:15 AM	0	0	0	0
	8:30 AM	0	0	0	0
	8:45 AM	0	0	0	0
	TOTAL	0	4	0	0
	AM BEGIN PEAK HR	7:30 AM			
PM	4:00 PM	0	0	0	0
	4:15 PM	0	1	0	0
	4:30 PM	1	0	0	0
	4:45 PM	0	4	0	0
	5:00 PM	1	2	0	0
	5:15 PM	0	0	0	0
	5:30 PM	0	0	0	0
	5:45 PM	1	0	0	0
	TOTAL	3	7	0	0
	PM BEGIN PEAK HR	4:00 PM			

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	4	0	0	4
7:30 AM				
0	0	0	0	0
0	1	0	0	1
1	0	0	0	1
0	4	0	0	4
1	2	0	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
3	7	0	0	10
4:00 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
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	3	0	0	3
0	2	0	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	4	0	0	4
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	6	0	0	6
0	5	0	0	5

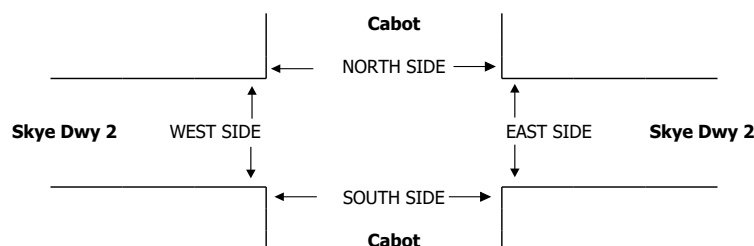
BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
3	1	0	0	4

AimTD LLC
TURNING MOVEMENT COUNTS

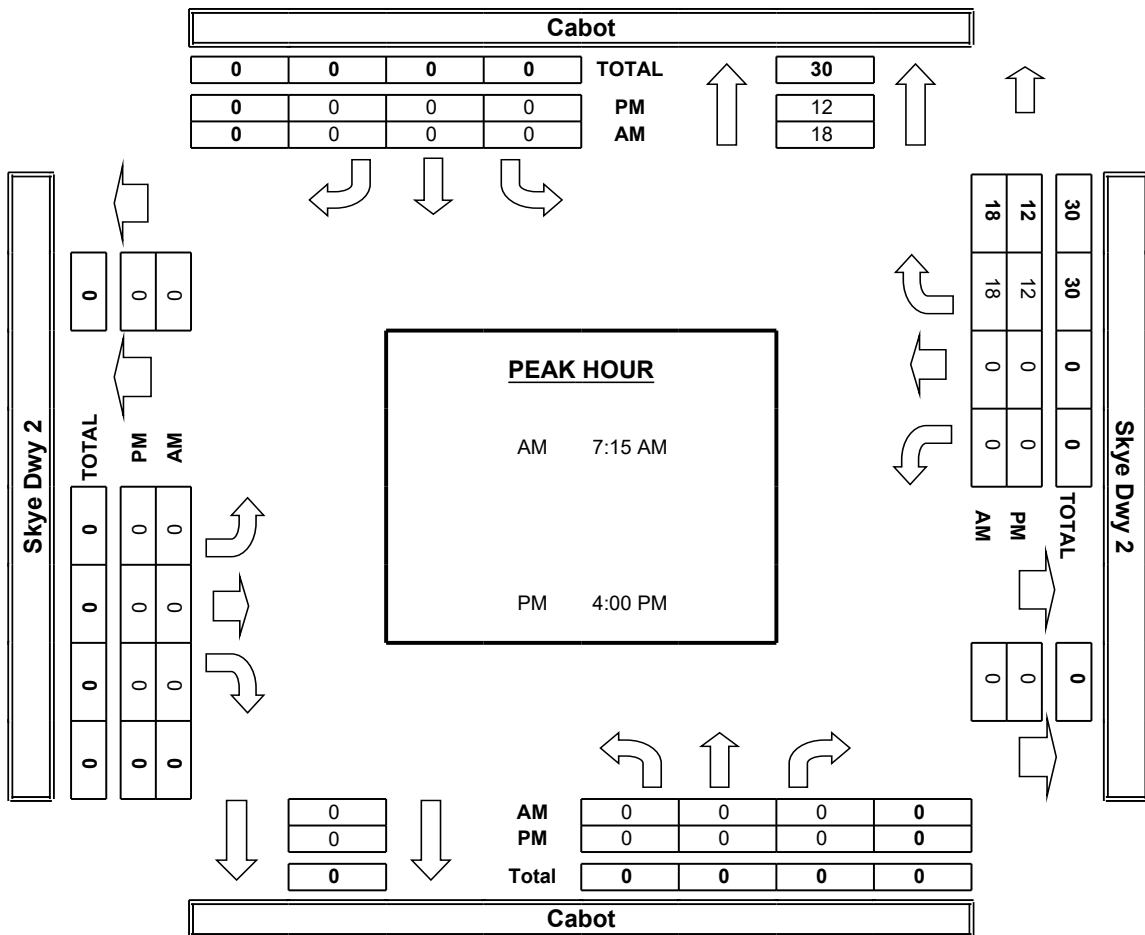
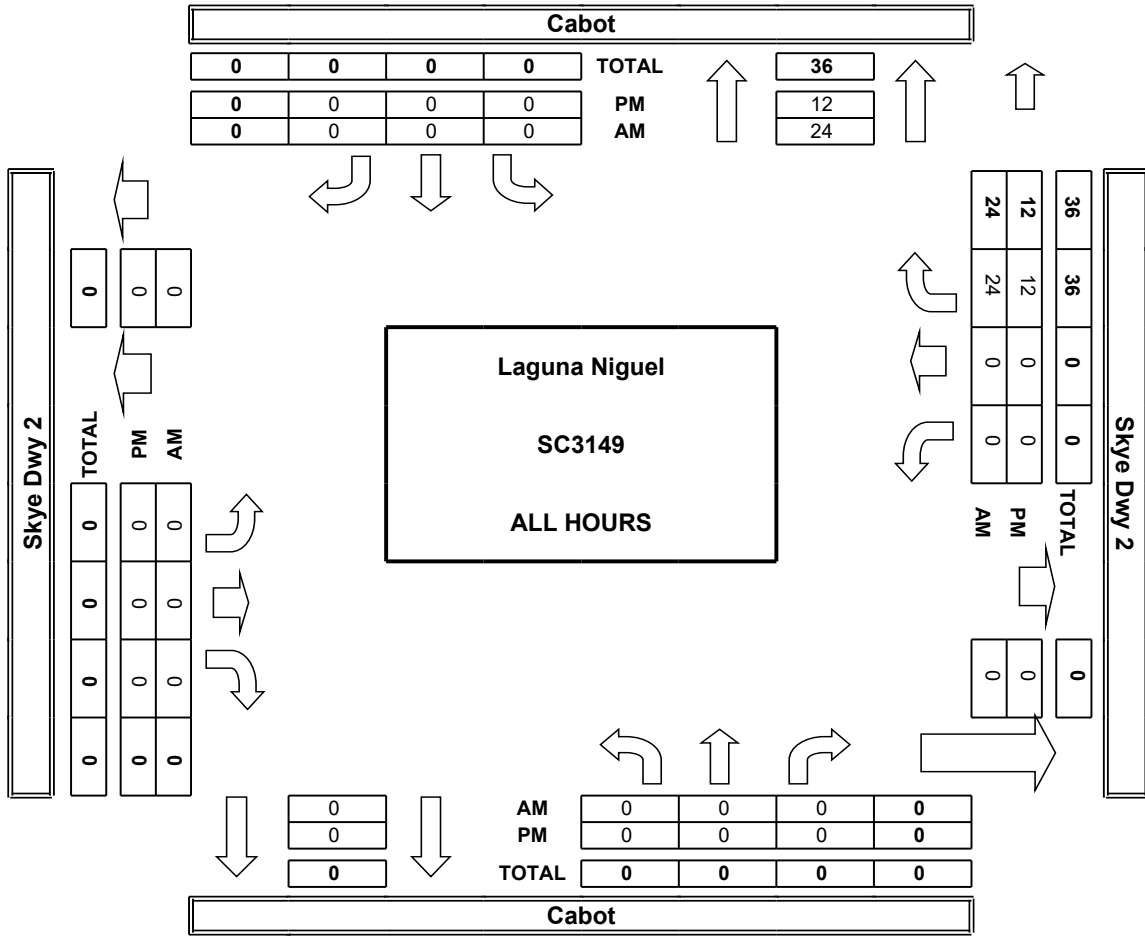


☒ Add U-Turns to Left Turns

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

[illegible][illegible][illegible]

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: Cabot
Skye Dwy 2

PROJECT #: SC3149
LOCATION #: 2
CONTROL: NO CONTROL

NOTES:

AM

PM

MD

OTHER

OTHER

▲

◀ W

S

▶ E

▼

N

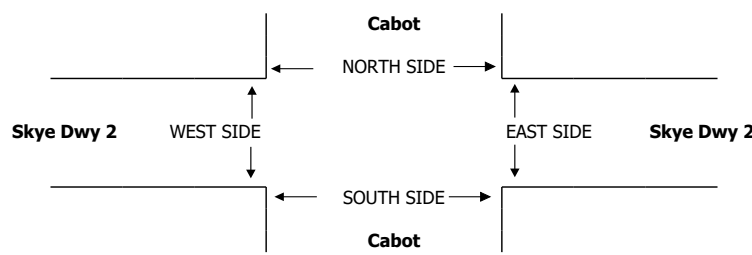
S

☐ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Skye Dwy 2			Skye Dwy 2			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	2	0	X	2	X	X	X	X	X	X	0	
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	3	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	6	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	2
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	25	25
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	0	/	25	0	/	0	0	/	0	25	/	0	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	18	18
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR	0.000			0.000			0.000			0.750			0.750
APP/DEPART	0	/	18	0	/	0	0	/	0	18	/	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
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	4	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	3
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	4	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	13	13
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	0	/	13	0	/	0	0	/	0	13	/	0	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	11	11
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR	0.000			0.000			0.000			0.688			0.688
APP/DEPART	0	/	11	0	/	0	0	/	0	11	/	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	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	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



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	
PM	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	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	3	0	3
7:30 AM				
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	5	0	5
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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	2	0	2
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	5	0	5
0	0	1	0	1

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
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	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

The diagram illustrates the layout of the Laguna Niguel Transit Center, including bus stop locations, bus routes, and passenger counts for all hours and peak hours.

Central Area: Laguna Niguel
SC3149
ALL HOURS

Top Section (All Hours):

- Cabot:**
 - TOTAL: 38
 - PM: 13
 - AM: 25
- Skylar Dwy 2:**
 - TOTAL: 38
 - PM: 13
 - AM: 25
- Skylar Dwy 2:**
 - TOTAL: 38
 - PM: 13
 - AM: 25

Bottom Section (All Hours):

- Cabot:**
 - TOTAL: 0
 - PM: 0
 - AM: 0
- Skylar Dwy 2:**
 - TOTAL: 0
 - PM: 0
 - AM: 0
- Skylar Dwy 2:**
 - TOTAL: 0
 - PM: 0
 - AM: 0

Top Section (Peak Hour):

- Cabot:**
 - TOTAL: 29
 - PM: 11
 - AM: 18
- Skylar Dwy 2:**
 - TOTAL: 29
 - PM: 11
 - AM: 18
- Skylar Dwy 2:**
 - TOTAL: 29
 - PM: 11
 - AM: 18

Bottom Section (Peak Hour):

- Cabot:**
 - TOTAL: 0
 - PM: 0
 - AM: 0
- Skylar Dwy 2:**
 - TOTAL: 0
 - PM: 0
 - AM: 0
- Skylar Dwy 2:**
 - TOTAL: 0
 - PM: 0
 - AM: 0

Central Area (Peak Hour):

AM 7:30 AM

PM 4:30 PM

DATE: Tue, Nov 2, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Niguel I-5 SB Ramps Crown Valley	PROJECT #: LOCATION #: CONTROL:	SC3149 2 SIGNAL	
NOTES: Queue EB AM/PM; Minor Construction ER			AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶

☒ Add U-Turns to Left Turns

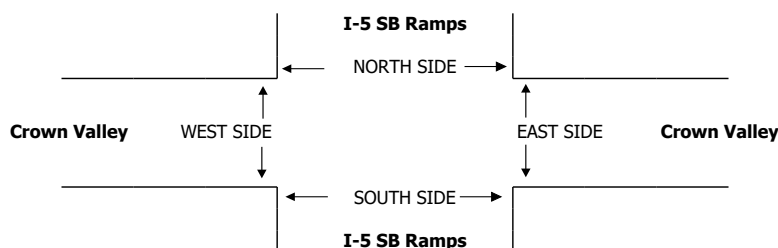
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-5 SB Ramps			I-5 SB Ramps			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	2.5	0.5	2	X	4	1	2	3	X	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	0	0	159	1	174	0	299	40	74	130	0	877
	7:15 AM	0	0	0	196	6	168	0	328	44	101	174	0	1,017
	7:30 AM	0	0	0	187	1	159	0	431	82	121	224	0	1,205
	7:45 AM	0	0	0	262	1	154	0	415	64	90	275	0	1,261
	8:00 AM	0	0	0	188	0	136	0	376	52	92	264	0	1,108
	8:15 AM	0	0	0	233	1	168	0	391	67	84	262	0	1,206
	8:30 AM	0	0	0	231	2	142	0	391	54	81	251	0	1,152
	8:45 AM	0	0	0	223	5	164	0	429	67	68	227	0	1,183
	VOLUMES	0	0	0	1,679	17	1,265	0	3,060	470	711	1,807	0	9,009
	APPROACH %	0%	0%	0%	57%	1%	43%	0%	87%	13%	28%	72%	0%	
APP/DEPART	0	/	0	2,961	/	1,197	3,530	/	4,740	2,518	/	3,072	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	0	0	0	870	3	617	0	1,613	265	387	1,025	0	4,780	
APPROACH %	0%	0%	0%	58%	0%	41%	0%	86%	14%	27%	73%	0%		
PEAK HR FACTOR	0.000				0.893		0.915		0.967		0.948			
APP/DEPART	0	/	0	1,490	/	655	1,878	/	2,483	1,412	/	1,642	0	
PM	4:00 PM	0	0	0	195	3	194	0	497	60	101	332	0	1,382
	4:15 PM	0	0	0	213	1	203	0	476	73	81	328	0	1,375
	4:30 PM	0	0	0	180	2	179	0	430	67	84	343	0	1,285
	4:45 PM	0	0	0	222	0	212	0	430	70	79	312	0	1,325
	5:00 PM	0	0	0	212	2	198	0	388	66	109	315	0	1,290
	5:15 PM	0	0	0	221	0	221	0	450	87	91	367	0	1,437
	5:30 PM	0	0	0	199	0	208	0	474	68	88	334	0	1,371
	5:45 PM	0	0	0	247	2	190	0	454	63	70	279	0	1,305
	VOLUMES	0	0	0	1,689	10	1,605	0	3,599	554	703	2,610	0	10,770
	APPROACH %	0%	0%	0%	51%	0%	49%	0%	87%	13%	21%	79%	0%	
	APP/DEPART	0	/	0	3,304	/	1,266	4,153	/	5,289	3,313	/	4,215	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	0	0	0	854	2	839	0	1,742	291	367	1,328	0	5,423
	APPROACH %	0%	0%	0%	50%	0%	49%	0%	86%	14%	22%	78%	0%	
PEAK HR FACTOR	0.000				0.959		0.938		0.925		0.943			
APP/DEPART	0	/	0	1,695	/	660	2,033	/	2,596	1,695	/	2,167	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	1	1
0	0	0	1	1

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	1	1
0	0	0	1	1



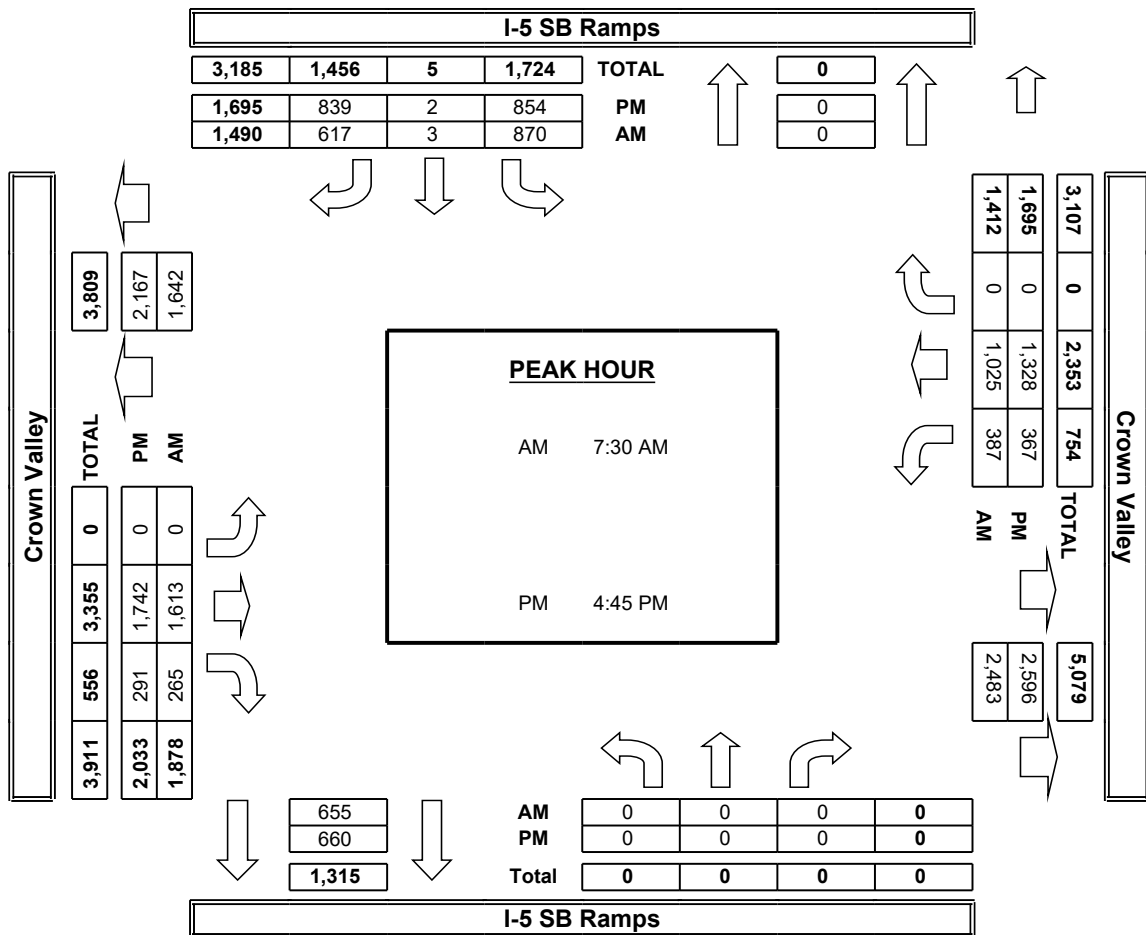
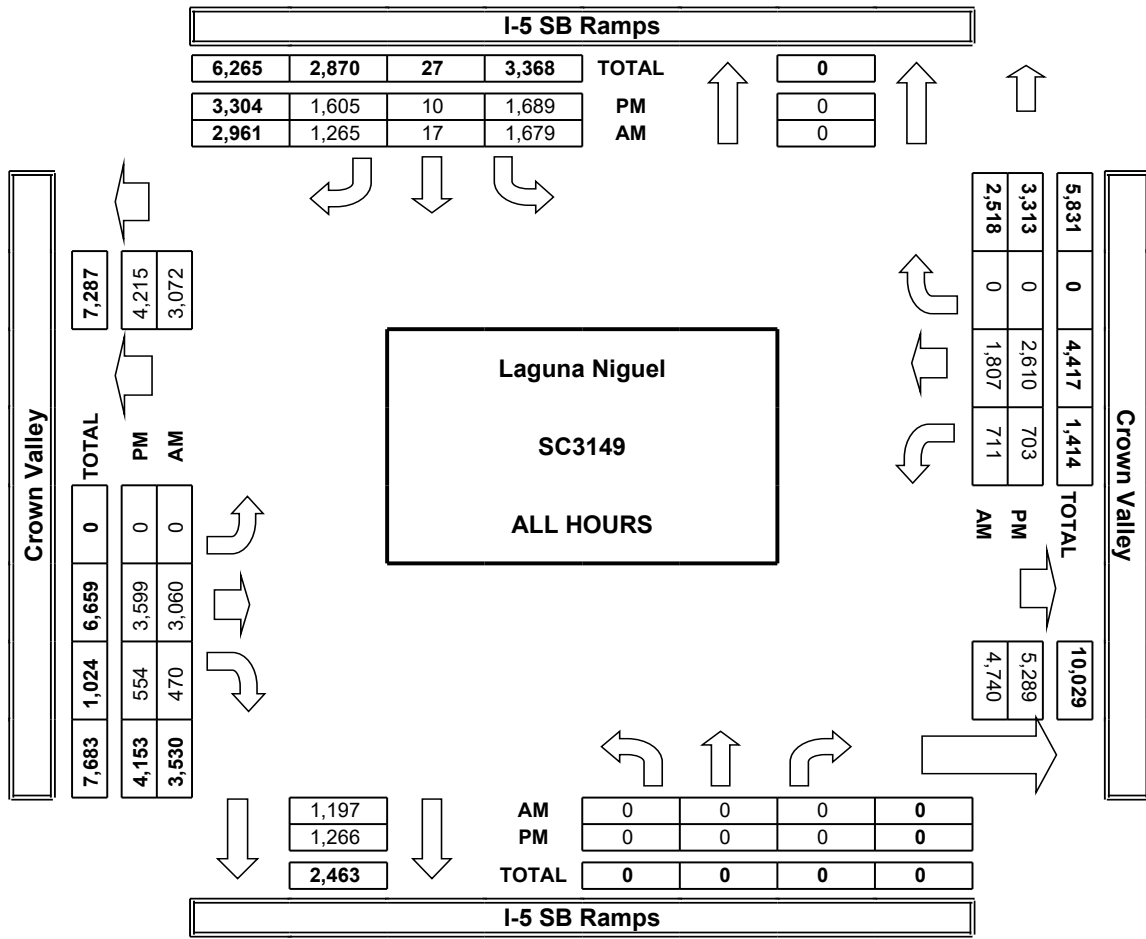
AM		7:00 AM
		7:15 AM
		7:30 AM
		7:45 AM
		8:00 AM
		8:15 AM
		8:30 AM
		8:45 AM
		TOTAL
		AM BEGIN PEAK HR
PM		4:00 PM
		4:15 PM
		4:30 PM
		4:45 PM
		5:00 PM
		5:15 PM
		5:30 PM
		5:45 PM
		TOTAL
		PM BEGIN PEAK HR

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
1	5	0	0	6
7:30 AM				
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
1	4	0	0	5
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
1	2	0	0	3
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	2	0	0	2
0	2	0	0	2

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	3	0	0	3
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
1	2	0	0	3

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: I-5 SB Ramps
Crown Valley

PROJECT #: SC3149
LOCATION #: 2
CONTROL: SIGNAL

NOTES:					AM PM MD OTHER OTHER	◀ W S ▶	▲ N S ▼	E ▶
Queue EB AM/ PM; Minor Construction ER								

☒ Add U-Turns to Left Turns

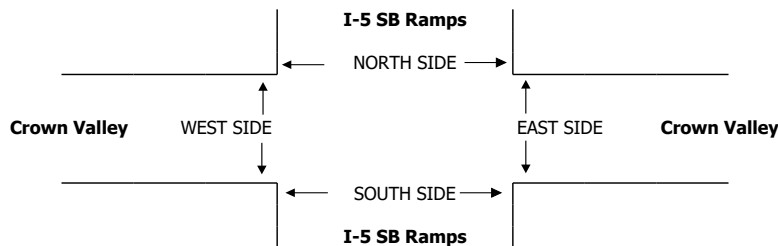
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-5 SB Ramps			I-5 SB Ramps			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	2.5	0.5	2	X	4	1	2	3	X	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	0	0	130	1	148	0	267	25	55	126	0	752
	7:15 AM	0	0	0	208	1	177	0	353	48	77	151	0	1,015
	7:30 AM	0	0	0	213	1	162	0	408	74	88	263	0	1,209
	7:45 AM	0	0	0	245	5	153	0	429	72	96	272	0	1,272
	8:00 AM	0	0	0	224	1	142	0	366	67	118	302	0	1,220
	8:15 AM	0	0	0	221	4	188	0	383	75	91	297	0	1,259
	8:30 AM	0	0	0	233	4	129	0	388	63	70	213	0	1,100
	8:45 AM	0	0	0	214	5	167	0	451	68	62	223	0	1,190
	VOLUMES	0	0	0	1,688	22	1,266	0	3,045	492	657	1,847	0	9,017
	APPROACH %	0%	0%	0%	57%	1%	43%	0%	86%	14%	26%	74%	0%	
	APP/DEPART	0	/	0	2,976	/	1,170	3,537	/	4,734	2,504	/	3,113	0
PM	BEGIN PEAK HR	7:30 AM												
	VOLUMES	0	0	0	903	11	645	0	1,586	288	393	1,134	0	4,960
	APPROACH %	0%	0%	0%	58%	1%	41%	0%	85%	15%	26%	74%	0%	
	PEAK HR FACTOR	0.000			0.944			0.935			0.909			0.975
	APP/DEPART	0	/	0	1,559	/	691	1,874	/	2,490	1,527	/	1,779	0
	4:00 PM	0	0	0	237	2	176	0	412	73	74	330	0	1,304
	4:15 PM	0	0	0	239	0	177	0	453	63	75	390	0	1,397
	4:30 PM	0	0	0	217	0	215	0	455	61	94	296	0	1,338
	4:45 PM	0	0	0	228	0	201	0	441	53	83	359	0	1,365
	5:00 PM	0	0	0	202	0	204	0	428	69	88	327	0	1,318
	5:15 PM	0	0	0	218	0	232	0	457	92	94	373	0	1,466
	5:30 PM	0	0	0	211	0	191	0	429	104	78	271	0	1,284
	5:45 PM	0	0	0	221	0	231	0	455	76	76	322	0	1,381
	VOLUMES	0	0	0	1,773	2	1,627	0	3,530	591	662	2,668	0	10,853
	APPROACH %	0%	0%	0%	52%	0%	48%	0%	86%	14%	20%	80%	0%	
	APP/DEPART	0	/	0	3,402	/	1,254	4,121	/	5,304	3,330	/	4,295	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	865	0	852	0	1,781	275	359	1,355	0	5,487
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	87%	13%	21%	79%	0%	
	PEAK HR FACTOR	0.000			0.954			0.936			0.918			0.936
	APP/DEPART	0	/	0	1,717	/	633	2,056	/	2,647	1,714	/	2,207	0

0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
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	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

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	1	1
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	1	1



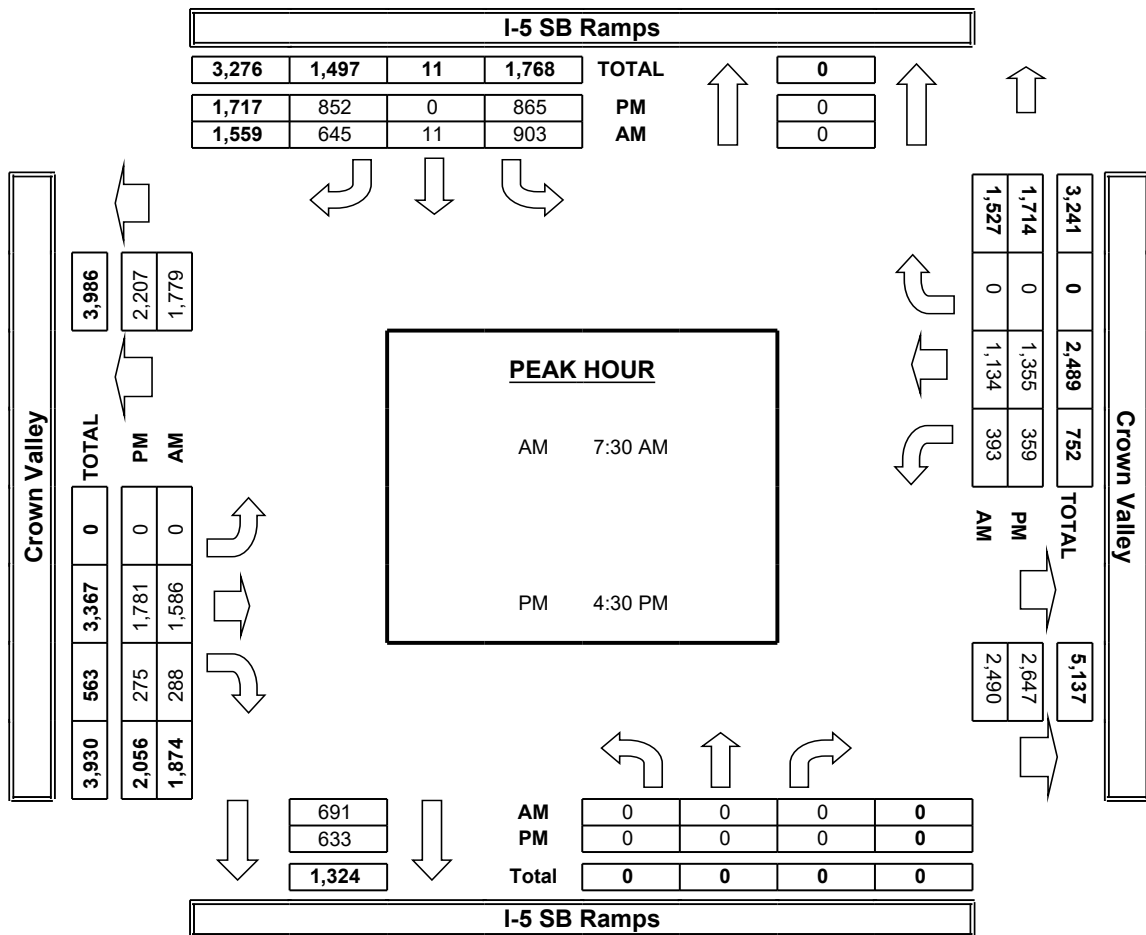
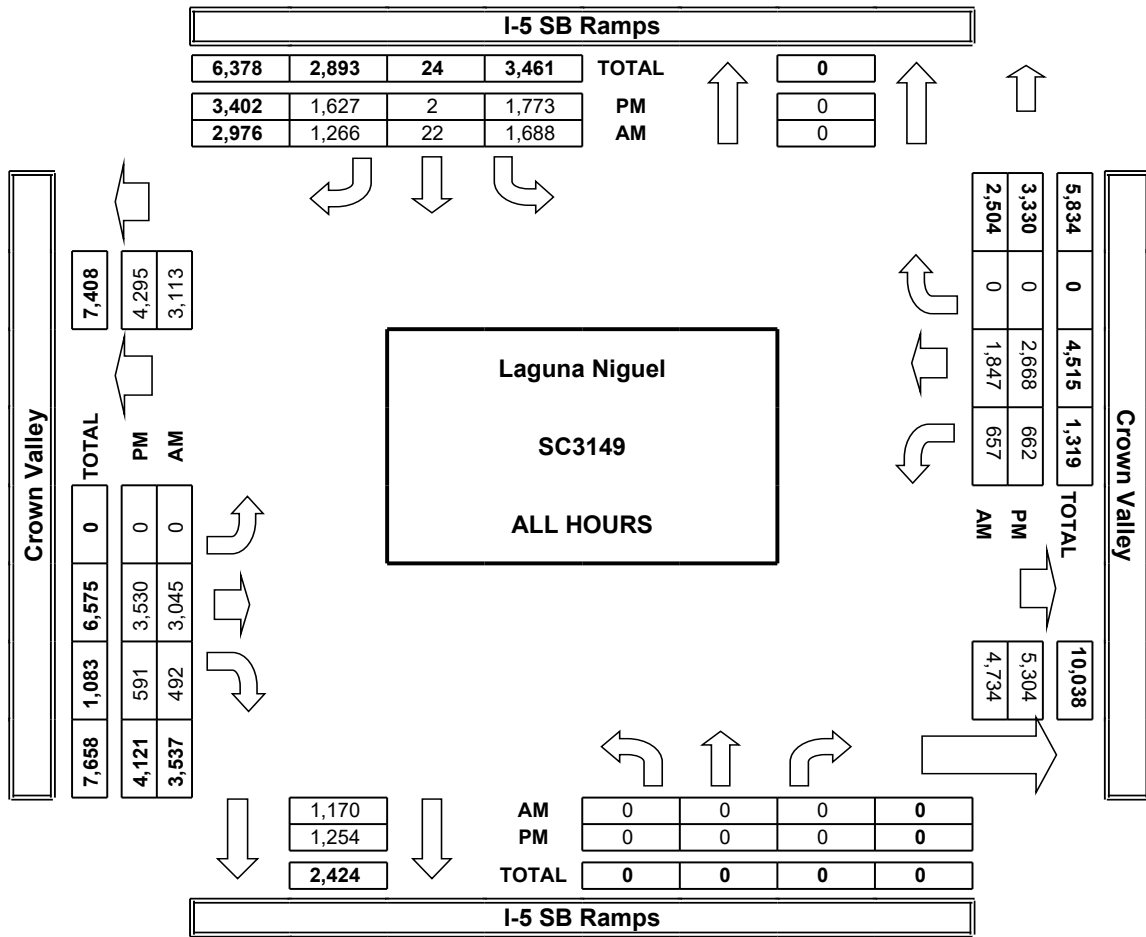
AM	7:00 AM	0	0	0	1
	7:15 AM	0	1	0	1
	7:30 AM	0	2	0	2
	7:45 AM	0	0	0	0
	8:00 AM	0	1	0	1
	8:15 AM	0	0	0	0
	8:30 AM	0	0	0	0
	8:45 AM	0	0	0	0
	TOTAL	1	4	0	5
	AM BEGIN PEAK HR	7:30 AM			
PM	4:00 PM	0	1	0	1
	4:15 PM	0	1	0	1
	4:30 PM	0	0	0	0
	4:45 PM	0	4	0	4
	5:00 PM	1	2	0	3
	5:15 PM	0	0	0	0
	5:30 PM	0	0	0	0
	5:45 PM	1	0	0	1
	TOTAL	2	8	0	10
	PM BEGIN PEAK HR	4:30 PM			

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	0	1
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	4	0	0	5
7:30 AM				
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	4	0	0	4
1	2	0	0	3
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
2	8	0	0	10
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
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	3	0	0	3
7:30 AM				
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	4	0	0	4
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	7	0	0	7
4:30 PM				

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
7:30 AM				
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
2	1	0	0	3
4:30 PM				

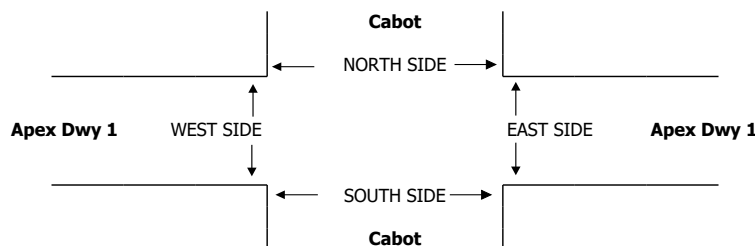
AimTD LLC
TURNING MOVEMENT COUNTS



DATE: Tue, Nov 2, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Niguel Cabot Apex Dwy 1	PROJECT #: LOCATION #: CONTROL:	SC3149 3 STOP W
NOTES: Illegal WL			AM PM MD OTHER OTHER	◀ W ▲ N S ▼ E ▶

☒ Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Cabot			Cabot			Apex Dwy 1			Apex Dwy 1			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	2	0	X	2	X	X	X	X	X	X	0	
7:00 AM	0	0	6	0	0	0	0	0	0	0	0	11	17
7:15 AM	0	0	0	0	0	0	0	0	0	3	0	13	16
7:30 AM	0	0	6	0	0	0	0	0	0	1	0	23	30
7:45 AM	0	0	5	0	0	0	0	0	0	0	0	14	19
8:00 AM	0	0	5	0	0	0	0	0	0	0	0	8	13
8:15 AM	0	0	4	0	0	0	0	0	0	0	0	12	16
8:30 AM	0	0	4	0	0	0	0	0	0	0	0	22	26
8:45 AM	0	0	5	0	0	0	0	0	0	0	0	10	15
VOLUMES	0	0	35	0	0	0	0	0	0	4	0	113	152
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	3%	0%	97%	
APP/DEPART	35	/	113	0	/	4	0	/	35	117	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	17	0	0	0	0	0	0	4	0	61	82
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	6%	0%	94%	
PEAK HR FACTOR	0.708			0.000			0.000			0.677			0.683
APP/DEPART	17	/	61	0	/	4	0	/	17	65	/	0	0
4:00 PM	0	0	12	0	0	0	0	0	0	1	0	15	28
4:15 PM	0	0	12	0	0	0	0	0	0	0	0	12	24
4:30 PM	0	0	14	0	0	0	0	0	0	0	0	7	21
4:45 PM	0	0	11	0	0	0	0	0	0	0	0	10	21
5:00 PM	0	0	15	0	0	0	0	0	0	0	0	7	22
5:15 PM	0	0	11	0	0	0	0	0	0	0	0	4	15
5:30 PM	0	0	8	0	0	0	0	0	0	0	0	10	18
5:45 PM	0	0	16	0	0	0	0	0	0	0	0	8	24
VOLUMES	0	0	99	0	0	0	0	0	0	1	0	73	173
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	1%	0%	99%	
APP/DEPART	99	/	73	0	/	1	0	/	99	74	/	0	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	49	0	0	0	0	0	0	1	0	44	94
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	2%	0%	98%	
PEAK HR FACTOR	0.875			0.000			0.000			0.703			0.839
APP/DEPART	49	/	44	0	/	1	0	/	49	45	/	0	0

[illegible][illegible]

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	
PM	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	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	3	0	3
0	0	1	0	1
0	0	2	0	2
0	0	1	0	1
0	0	2	0	2
0	0	3	0	3
0	0	1	0	1
0	0	0	0	0
0	0	13	0	13
7:00 AM				
0	0	0	0	0
0	0	4	0	4
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	2	0	2
0	0	2	0	2
0	0	1	0	1
0	0	12	0	12
4:00 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	3	0	3
0	0	1	0	1
0	0	2	0	2
0	0	1	0	1
0	0	2	0	2
0	0	3	0	3
0	0	1	0	1
0	0	0	0	0
0	0	13	0	13
0	0	7	0	7
0	0	0	0	0
0	0	4	0	4
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	2	0	2
0	0	2	0	2
0	0	1	0	1
0	0	12	0	12
0	0	7	0	7

[illegible]

Laguna Niguel
SC3149
ALL HOURS

Cabot

0	0	0	0	TOTAL	186
0	0	0	0	PM	73
0	0	0	0	AM	113

Apex Dwy 1

191	186	0	5	TOTAL	134
74	73	0	1	PM	99
117	113	0	4	AM	35

Apex Dwy 1

0	0	0	0	TOTAL	0
0	0	0	0	PM	0
0	0	0	0	AM	0

Cabot

4	1	5	AM	0	0	35	35
4	1	5	PM	0	0	99	99
4	1	5	TOTAL	0	0	134	134

Laguna Niguel
SC3149
PEAK HOUR

AM 7:00 AM

PM 4:00 PM

Cabot

0	0	0	0	TOTAL	105
0	0	0	0	PM	44
0	0	0	0	AM	61

Apex Dwy 1

110	105	0	5	TOTAL	66
45	44	0	1	PM	49
65	61	0	4	AM	17

Apex Dwy 1

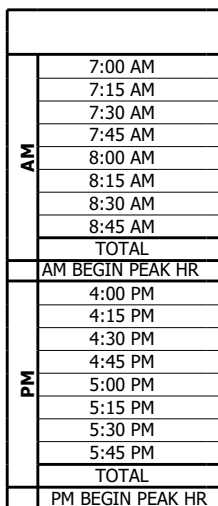
0	0	0	0	TOTAL	0
0	0	0	0	PM	0
0	0	0	0	AM	0

Cabot

4	1	5	AM	0	0	17	17
4	1	5	PM	0	0	49	49
4	1	5	Total	0	0	66	66

☒ Add U-Turns to Left Turns

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

[illegible][illegible]

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	1	0	1
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	3	0	3
0	0	1	0	1
0	0	1	0	1
0	0	3	0	3
0	0	12	0	12
0	0	7	0	7
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	4	0	4
0	0	4	0	4
0	0	4	0	4
0	0	3	0	3
0	0	1	0	1
0	0	19	0	19
0	0	12	0	12

BICYCLE CROSSINGS					
NS	SS	ES	WS	TOTAL	
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	1	0	1	
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	1	0	1	

Laguna Niguel
SC3149
ALL HOURS

Cabot

0	0	0	0	TOTAL	201
0	0	0	0	PM	68
0	0	0	0	AM	133

Apex Dwy 1

0	0	0	0	TOTAL	125
0	0	0	0	PM	88
0	0	0	0	AM	37

Cabot

0	0	37	37	AM
0	0	88	88	PM
0	0	125	125	TOTAL

Laguna Niguel
PEAK HOUR

AM 7:30 AM

PM 5:00 PM

Cabot

0	0	0	0	TOTAL	117
0	0	0	0	PM	39
0	0	0	0	AM	78

Apex Dwy 1

0	0	0	0	TOTAL	79
0	0	0	0	PM	53
0	0	0	0	AM	26

Cabot

0	0	26	26	AM
0	0	53	53	PM
0	0	79	79	Total

INTERSECTION TURNING MOVEMENT COUNTS

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

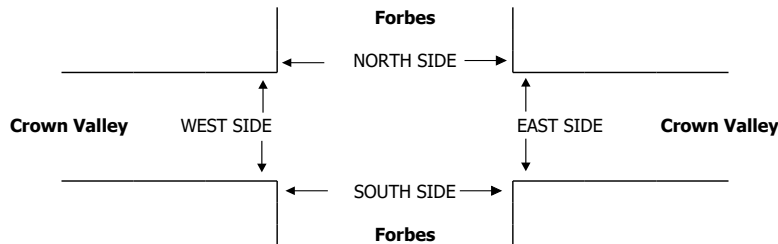
T218

DATE: Tue, Nov 2, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Niguel Forbes Crown Valley	PROJECT #: LOCATION #: CONTROL:	SC3149 3 SIGNAL
NOTES: Queue EB AM/PM			AM PM MD OTHER OTHER ▲ ◀ W ▶ E ▼ N S	☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Forbes			Forbes			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	2	4	0	1	3	1	
AM													
7:00 AM	8	0	8	25	0	13	8	306	19	23	271	24	705
7:15 AM	9	0	11	30	0	20	7	331	14	17	300	38	777
7:30 AM	11	0	22	24	0	23	11	467	17	22	372	22	991
7:45 AM	11	0	14	26	2	26	16	437	20	30	388	13	983
8:00 AM	6	1	13	21	0	22	18	396	13	25	378	24	917
8:15 AM	9	1	14	24	0	18	17	419	20	24	402	15	963
8:30 AM	12	0	20	18	1	17	14	407	13	16	366	24	908
8:45 AM	9	0	13	24	1	16	17	457	14	18	368	24	961
VOLUMES	75	2	115	192	4	155	108	3,220	130	175	2,845	184	7,205
APPROACH %	39%	1%	60%	55%	1%	44%	3%	93%	4%	5%	89%	6%	
APP/DEPART	192	/	287	351	/	301	3,458	/	3,535	3,204	/	3,082	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	37	2	63	95	2	89	62	1,719	70	101	1,540	74	3,854
APPROACH %	36%	2%	62%	51%	1%	48%	3%	93%	4%	6%	90%	4%	
PEAK HR FACTOR	0.773			0.861			0.935			0.972			0.972
APP/DEPART	102	/	135	186	/	167	1,851	/	1,883	1,715	/	1,669	0
PM													
4:00 PM	12	1	19	20	1	18	24	516	5	12	450	36	1,114
4:15 PM	7	0	25	23	2	29	25	500	8	12	508	24	1,163
4:30 PM	15	0	28	21	1	19	28	444	11	17	453	35	1,072
4:45 PM	32	0	30	27	0	33	19	441	8	12	518	31	1,151
5:00 PM	12	0	24	36	1	29	28	398	10	15	459	23	1,035
5:15 PM	16	1	20	28	0	15	31	486	7	9	554	31	1,198
5:30 PM	7	0	10	36	0	21	35	495	8	8	499	39	1,158
5:45 PM	20	0	14	21	1	25	22	479	9	7	468	26	1,092
VOLUMES	121	2	170	212	6	189	212	3,759	66	92	3,909	245	8,983
APPROACH %	41%	1%	58%	52%	1%	46%	5%	93%	2%	2%	92%	6%	
APP/DEPART	293	/	450	407	/	146	4,037	/	4,159	4,246	/	4,228	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	67	1	84	127	1	98	113	1,820	33	44	2,030	124	4,542
APPROACH %	44%	1%	55%	56%	0%	43%	6%	93%	2%	2%	92%	6%	
PEAK HR FACTOR	0.613			0.856			0.914			0.925			0.948
APP/DEPART	152	/	233	226	/	70	1,966	/	2,039	2,198	/	2,200	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	2	2
0	0	1	3	4
0	0	2	1	3
0	0	1	0	1
0	0	3	2	5
0	0	7	8	15

0	0	1	2	3
0	0	0	1	1
0	0	0	4	4
0	0	1	2	3
0	0	1	2	3
0	0	1	3	4
0	0	2	1	3
0	0	3	3	6
0	0	9	18	27



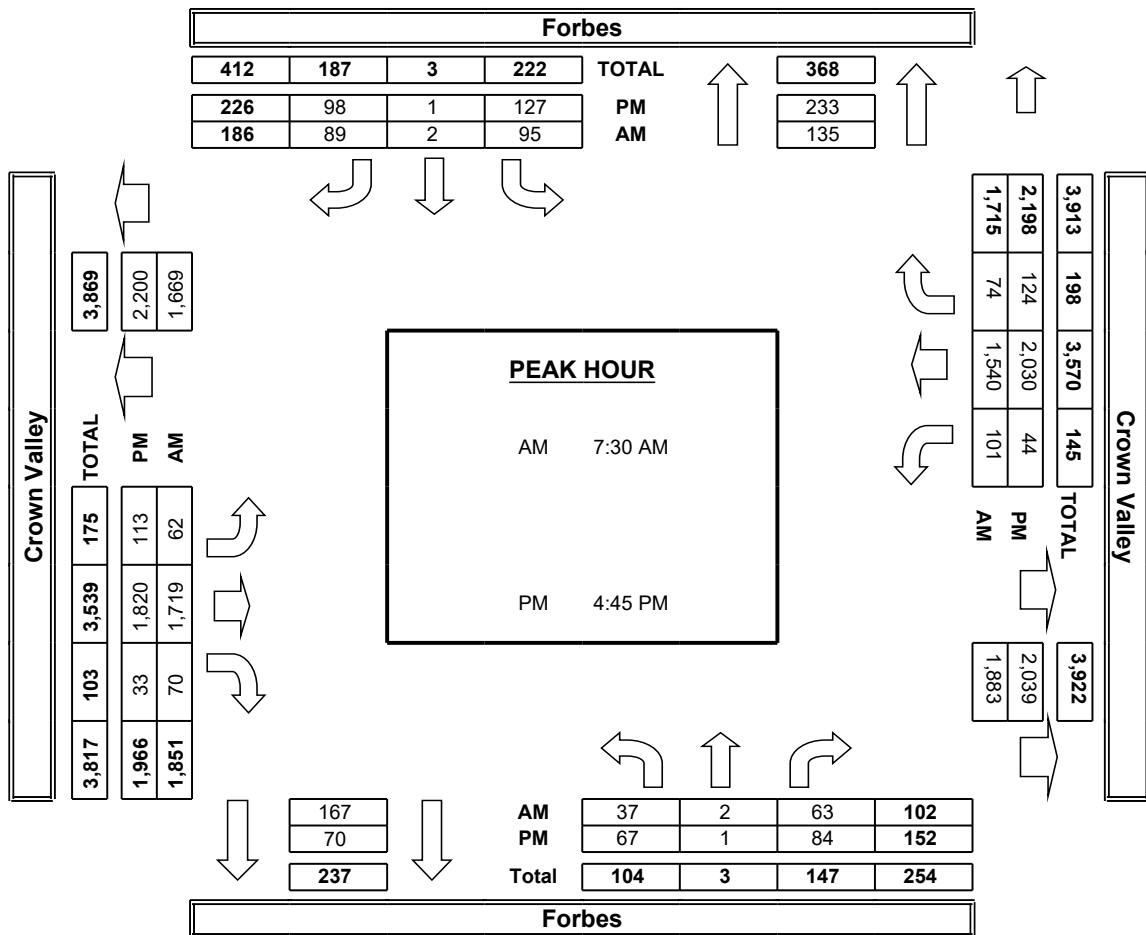
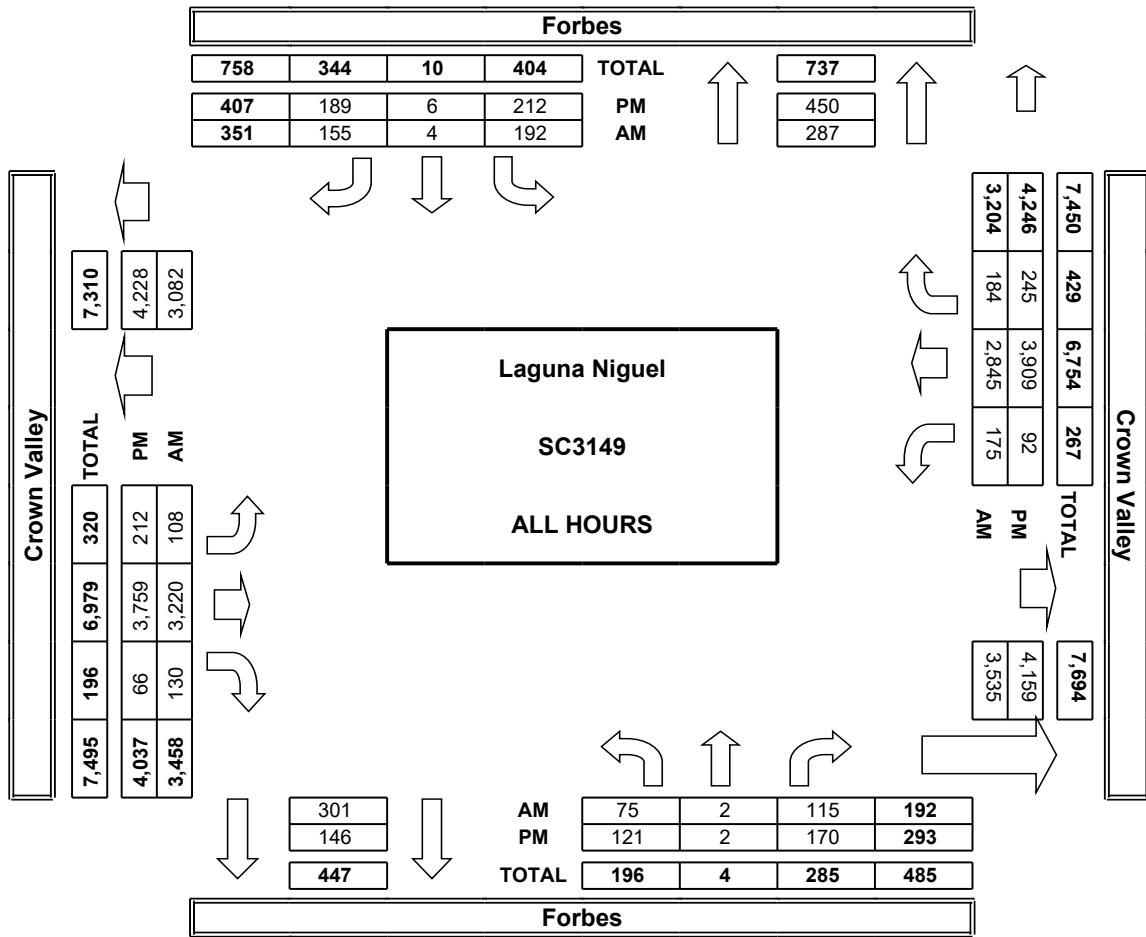
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
AM BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	2	3
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2
0	2	1	1	4
0	0	0	0	0
0	4	3	4	11
7:30 AM				
0	2	0	2	4
1	0	0	0	1
0	0	0	2	2
2	0	2	2	6
1	0	0	2	3
0	0	0	1	1
1	1	0	4	6
0	0	0	1	1
5	3	2	14	24
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	1	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	1	1	1	3
0	0	0	0	0
0	1	3	2	6
0	0	2	0	2
0	0	0	1	1
1	0	0	0	1
0	0	0	2	2
2	0	2	2	6
0	0	0	2	2
0	0	0	1	1
1	0	0	3	4
0	0	0	0	0
4	0	2	11	17
3	0	2	8	13

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	0	1	2
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	1	1
1	3	0	3	7

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: Forbes

PROJECT #: SC3149
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

Queue EB AM/PM

AM
PM
MD
OTHER
OTHER

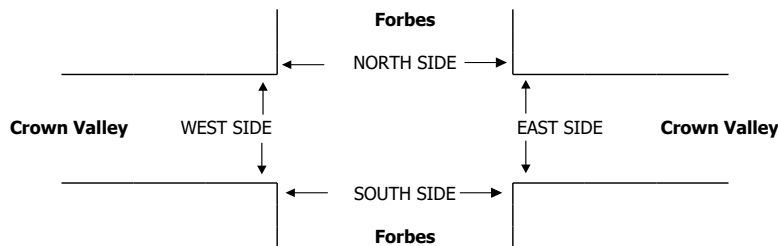
▲ N
◀ W
S
▶ E

☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Forbes			Forbes			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	2	4	0	1	3	1	
7:00 AM	7	0	12	13	0	13	11	265	17	19	252	19	628
7:15 AM	10	0	11	34	1	19	6	355	17	23	287	16	779
7:30 AM	4	1	14	23	0	29	8	441	16	25	393	23	977
7:45 AM	12	0	9	23	4	23	27	463	28	34	368	21	1,012
8:00 AM	12	1	13	24	0	29	27	394	22	31	404	22	979
8:15 AM	11	1	19	24	0	22	21	408	18	30	437	28	1,019
8:30 AM	12	1	18	21	0	22	20	410	11	24	301	19	859
8:45 AM	12	2	13	29	1	18	19	476	16	20	356	23	985
VOLUMES	80	6	109	191	6	175	139	3,212	145	206	2,798	171	7,238
APPROACH %	41%	3%	56%	51%	2%	47%	4%	92%	4%	6%	88%	5%	
APP/DEPART	195	/	304	372	/	329	3,496	/	3,540	3,175	/	3,065	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	39	3	55	94	4	103	83	1,706	84	120	1,602	94	3,987
APPROACH %	40%	3%	57%	47%	2%	51%	4%	91%	4%	7%	88%	5%	
PEAK HR FACTOR	0.782			0.948			0.904			0.917			0.978
APP/DEPART	97	/	178	201	/	189	1,873	/	1,874	1,816	/	1,746	0
4:00 PM	19	2	20	27	2	27	26	446	13	21	489	37	1,129
4:15 PM	11	3	18	22	1	26	23	467	11	9	525	37	1,153
4:30 PM	16	2	17	29	1	25	30	454	6	12	459	29	1,080
4:45 PM	16	0	16	27	1	40	23	448	6	13	543	35	1,168
5:00 PM	17	0	24	39	3	31	19	415	4	15	474	32	1,073
5:15 PM	14	0	28	19	0	28	31	501	3	11	557	42	1,234
5:30 PM	9	1	15	27	0	24	26	582	6	8	425	44	1,167
5:45 PM	22	1	19	22	0	21	31	422	7	17	534	29	1,125
VOLUMES	124	9	157	212	8	222	209	3,735	56	106	4,006	285	9,129
APPROACH %	43%	3%	54%	48%	2%	50%	5%	93%	1%	2%	91%	6%	
APP/DEPART	290	/	491	442	/	149	4,000	/	4,125	4,397	/	4,364	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	56	1	83	112	4	123	99	1,946	19	47	1,999	153	4,642
APPROACH %	40%	1%	59%	47%	2%	51%	5%	94%	1%	2%	91%	7%	
PEAK HR FACTOR	0.833			0.818			0.840			0.901			0.940
APP/DEPART	140	/	249	239	/	61	2,064	/	2,150	2,199	/	2,182	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	
0	0	2	5	7
0	0	1	1	2
0	0	0	4	4
0	0	2	6	8
0	0	0	2	2
0	0	0	7	7
0	0	4	2	6
0	0	3	1	4
0	0	12	28	40

0	0	0	4	4
0	0	2	2	4
0	0	1	2	3
0	0	1	0	1
0	0	0	2	2
0	0	1	4	5
0	0	2	3	5
0	0	5	4	9
0	0	12	21	33



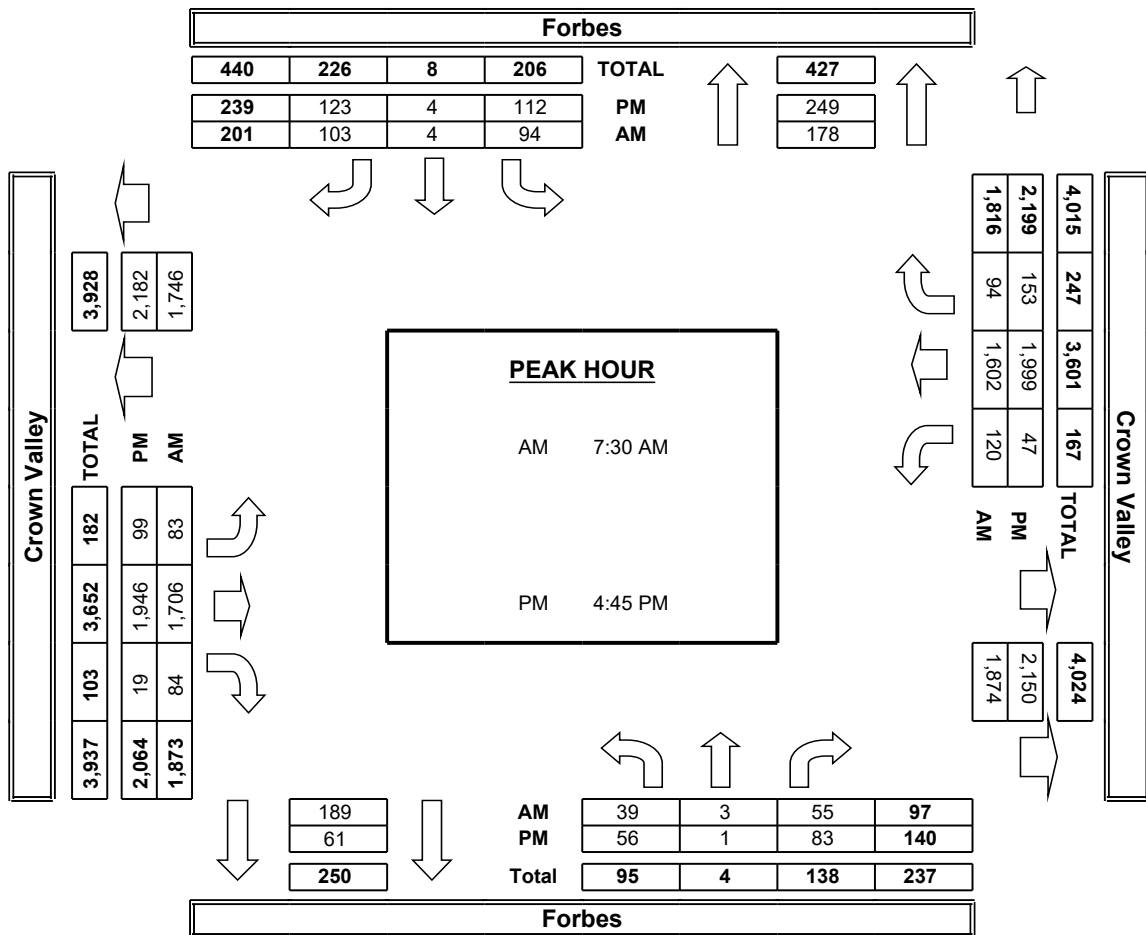
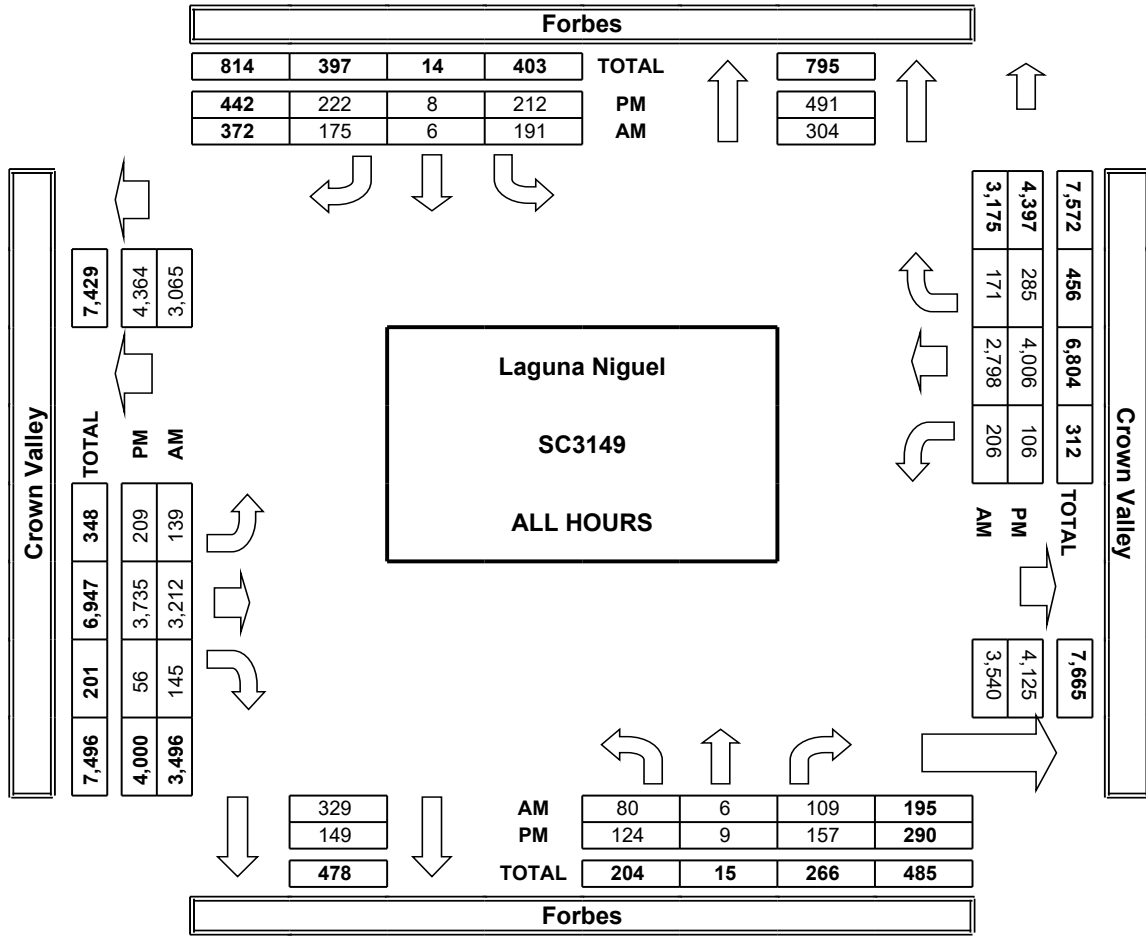
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
TOTAL	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
TOTAL	
AM BEGIN PEAK HR	
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	1	3
1	0	0	4	5
1	0	3	0	4
0	0	0	1	1
0	1	0	0	1
0	0	0	0	0
1	0	0	1	2
1	0	0	0	1
6	1	3	7	17
7:30 AM				
0	1	0	1	2
0	0	0	0	0
1	1	4	0	6
1	0	1	5	7
1	0	0	2	3
0	0	1	2	3
0	0	0	2	2
3	0	0	2	5
6	2	6	14	28
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	1	3
1	0	0	0	1
1	0	3	0	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
1	0	0	0	1
5	0	3	2	10
1	0	3	0	4
0	1	0	1	2
0	0	0	0	0
0	1	4	0	5
1	0	1	3	5
0	0	0	2	2
0	0	1	2	3
0	0	0	2	2
3	0	0	2	5
4	2	6	12	24
1	0	2	9	12

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	4	4
0	0	0	0	0
0	0	0	1	1
0	1	0	0	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	2	4

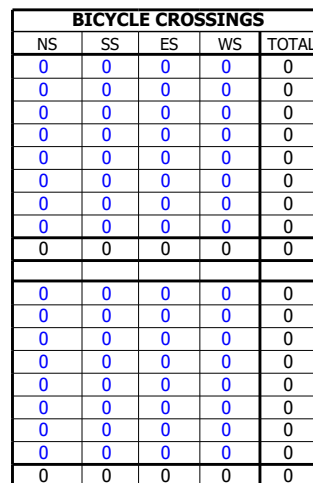
AimTD LLC
TURNING MOVEMENT COUNTS



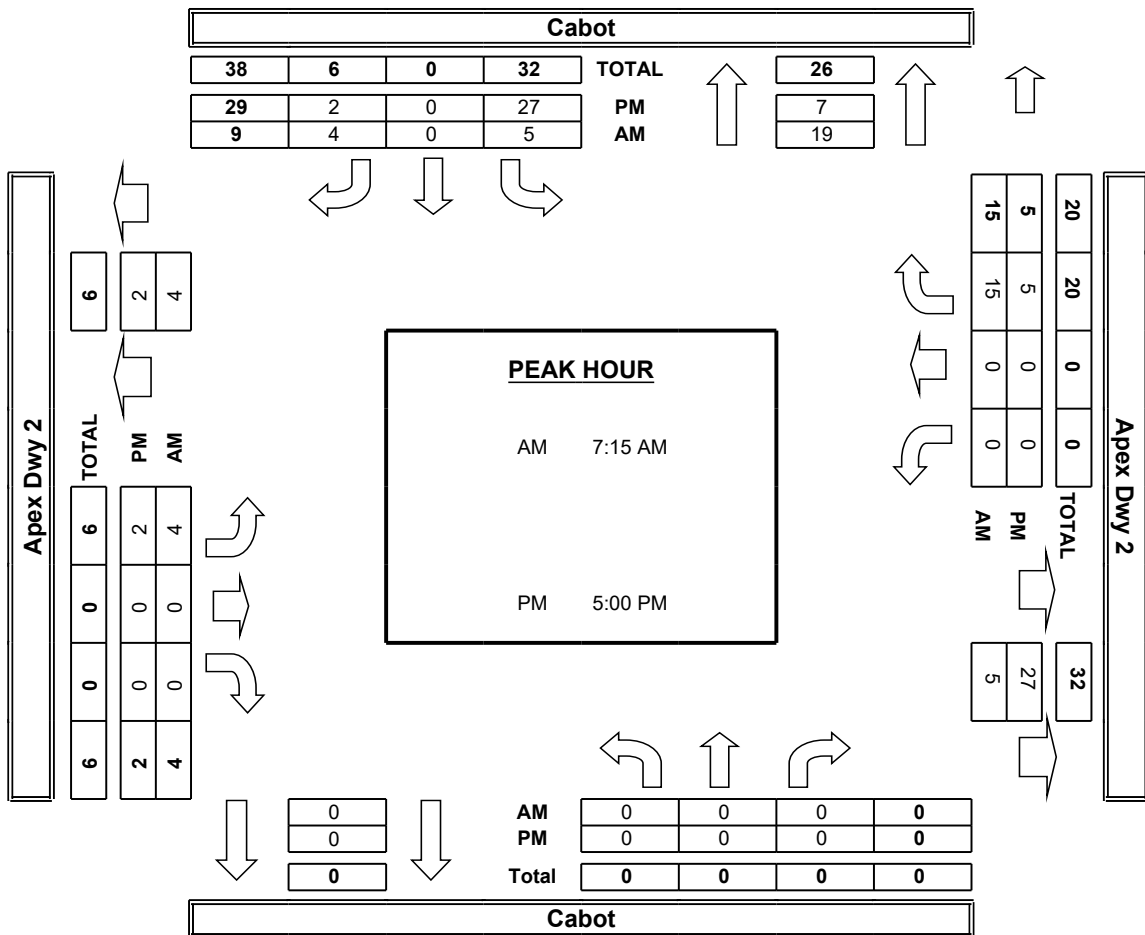
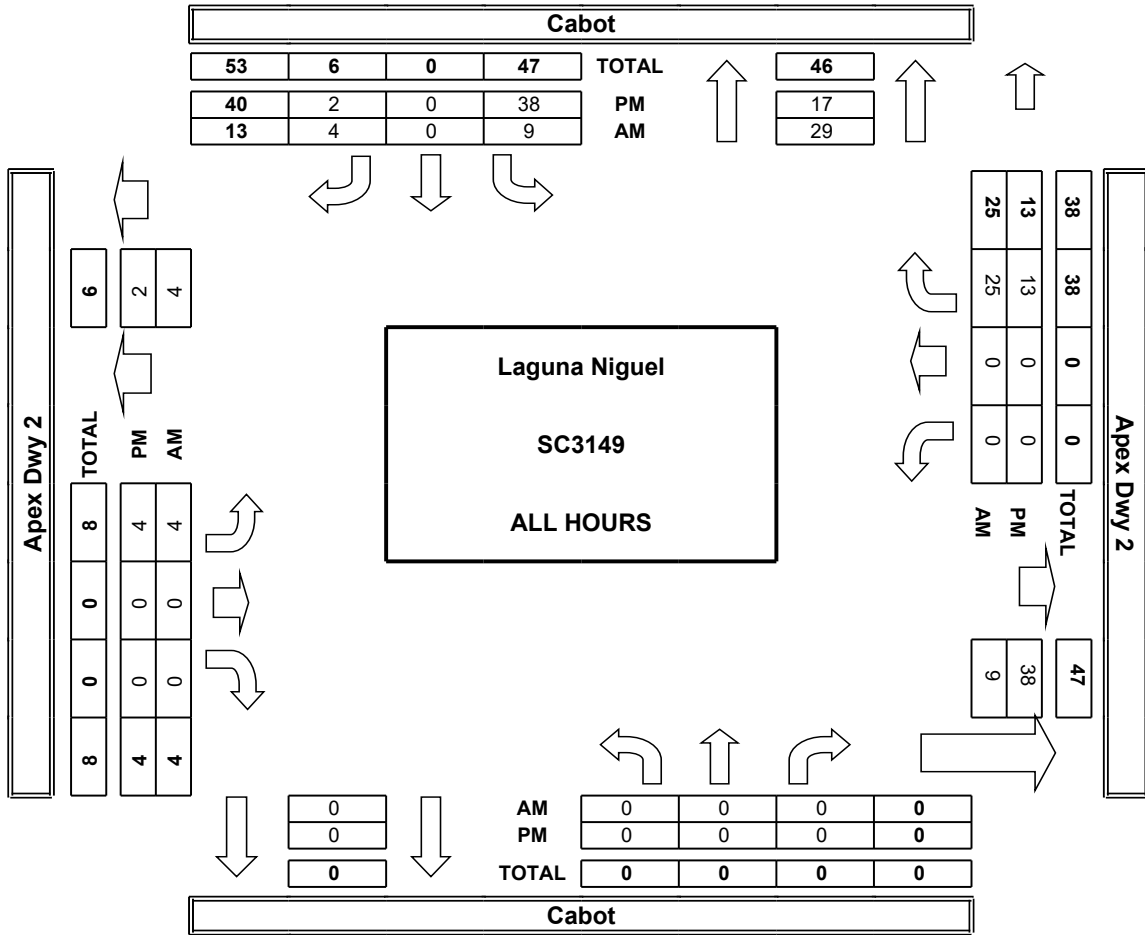
PROJECT #: SC3149
LOCATION #: 4
CONTROL: NO CONTROL

☒ Add U-Turns to Left Turns

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

[illegible][illegible]

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

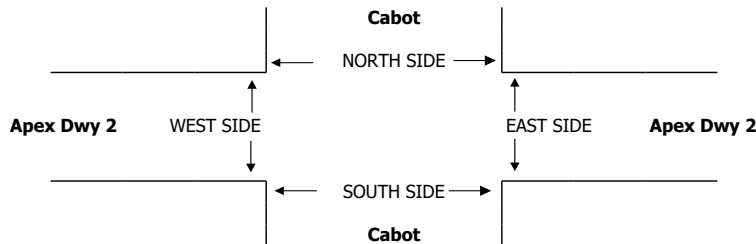
T218

DATE: Wed, Nov 3, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Niguel Cabot Apex Dwy 2	PROJECT #: LOCATION #: CONTROL:	SC3149 4 NO CONTROL
NOTES:			AM PM MD OTHER OTHER ◀ W S ▶ E ▲ N ▼	☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Cabot NL	Cabot NT	Cabot NR	Cabot SL	Cabot ST	Cabot SR	Apex Dwy 2 EL	Apex Dwy 2 ET	Apex Dwy 2 ER	Apex Dwy 2 WL	Apex Dwy 2 WT	Apex Dwy 2 WR	
LANES:	X	X	X	0	X	0	0	1	X	X	1	0	
7:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	6	7
7:30 AM	0	0	0	3	0	2	1	0	0	0	0	6	12
7:45 AM	0	0	0	3	0	0	0	0	0	0	0	4	7
8:00 AM	0	0	0	1	0	0	1	0	0	0	0	2	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	4
8:30 AM	0	0	0	1	0	0	0	0	0	0	0	2	3
8:45 AM	0	0	0	4	0	0	0	0	0	0	0	2	6
VOLUMES	0	0	0	15	0	2	2	0	0	0	0	26	45
APPROACH %	0%	0%	0%	88%	0%	12%	100%	0%	0%	0%	0%	100%	
APP/DEPART	0	/	28	17	/	0	2	/	15	26	/	2	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	0	0	0	8	0	2	2	0	0	0	0	18	30
APPROACH %	0%	0%	0%	80%	0%	20%	100%	0%	0%	0%	0%	100%	
PEAK HR FACTOR	0.000			0.500			0.500			0.750			0.625
APP/DEPART	0	/	20	10	/	0	2	/	8	18	/	2	0
4:00 PM	0	0	0	4	0	0	0	0	0	0	0	1	5
4:15 PM	0	0	0	3	0	0	0	0	0	0	0	4	7
4:30 PM	0	0	0	6	0	0	0	0	0	0	0	2	8
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
5:00 PM	0	0	0	4	0	0	0	0	0	0	0	2	6
5:15 PM	0	0	0	3	0	0	0	0	0	0	0	2	5
5:30 PM	0	0	0	6	0	0	0	0	0	0	0	2	8
5:45 PM	0	0	0	6	0	0	0	0	0	0	0	1	7
VOLUMES	0	0	0	33	0	0	0	0	0	0	0	15	48
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	0	/	15	33	/	0	0	/	33	15	/	0	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	0	0	19	0	0	0	0	0	0	0	7	26
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR	0.000			0.792			0.000			0.875			0.813
APP/DEPART	0	/	7	19	/	0	0	/	19	7	/	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	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	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



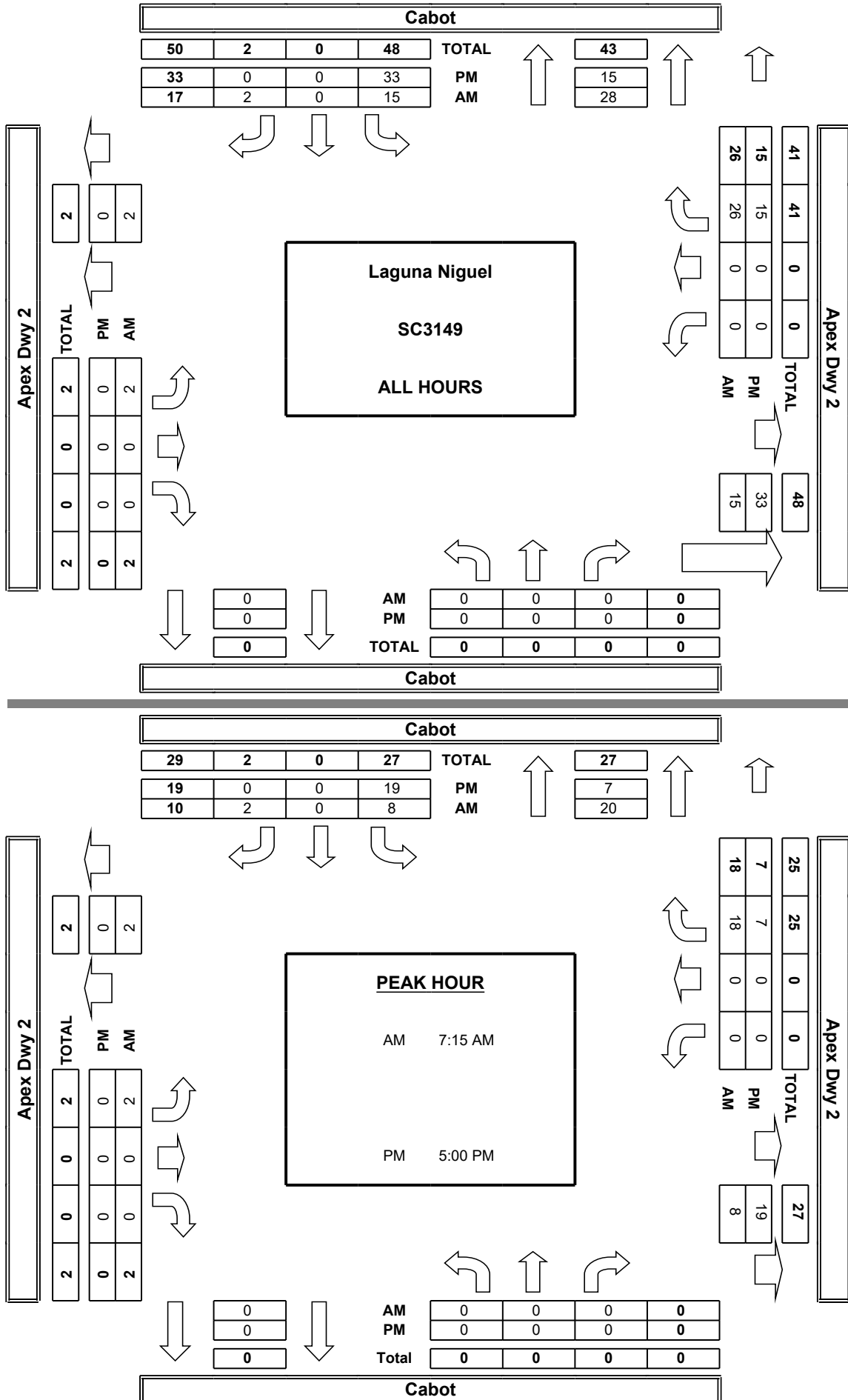
	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	2	0	0	0	2
7:15 AM	0	0	0	1	1
7:30 AM	1	0	0	0	1
7:45 AM	2	0	0	1	3
8:00 AM	1	0	2	2	5
8:15 AM	0	0	1	0	1
8:30 AM	2	0	0	0	2
8:45 AM	1	0	0	0	1
TOTAL	9	0	3	4	16
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	4	0	4
4:15 PM	2	0	0	0	2
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1
5:00 PM	5	0	1	0	6
5:15 PM	3	0	1	1	5
5:30 PM	3	0	0	1	4
5:45 PM	0	0	0	0	0
TOTAL	14	0	6	2	22
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	2	0	0	0	2
7:15 AM	0	0	0	1	1
7:30 AM	1	0	0	0	1
7:45 AM	2	0	0	1	3
8:00 AM	1	0	2	2	5
8:15 AM	0	0	1	0	1
8:30 AM	2	0	0	0	2
8:45 AM	1	0	0	0	1
TOTAL	9	0	3	4	16
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	4	0	4
4:15 PM	2	0	0	0	2
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1
5:00 PM	5	0	1	0	6
5:15 PM	3	0	1	1	5
5:30 PM	3	0	0	1	4
5:45 PM	0	0	0	0	0
TOTAL	14	0	6	2	22
PM BEGIN PEAK HR	5:00 PM				

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
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	7:15 AM				
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	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	1	1
7:30 AM	1	0	0	0	1
7:45 AM	2	0	0	1	3
8:00 AM	1	0	2	2	5
8:15 AM	0	0	1	0	1
8:30 AM	2	0	0	0	2
8:45 AM	1	0	0	0	1
TOTAL	9	0	3	4	16
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	4	0	4
4:15 PM	2	0	0	0	2
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1
5:00 PM	5	0	1	0	6
5:15 PM	3	0	1	1	5
5:30 PM	3	0	0	1	4
5:45 PM	0	0	0	0	0
TOTAL	14	0	6	2	22
PM BEGIN PEAK HR	5:00 PM				

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

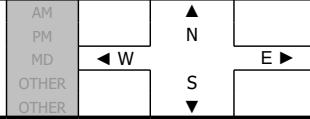
DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Cabot
Crown Valley

PROJECT #: SC3149
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

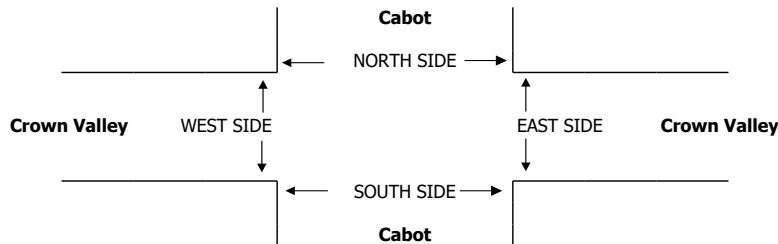


☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Crown Valley			Crown Valley			
LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
7:00 AM	7	25	68	25	25	22	12	221	6	50	219	30	710
7:15 AM	14	57	74	43	44	39	38	263	16	70	243	13	914
7:30 AM	13	55	100	35	44	70	56	343	22	53	295	26	1,112
7:45 AM	26	77	93	57	61	54	79	308	28	93	306	36	1,218
8:00 AM	22	83	86	50	71	56	67	270	23	56	265	44	1,093
8:15 AM	22	57	82	51	50	65	45	344	18	77	345	28	1,184
8:30 AM	19	67	94	46	42	62	51	306	17	78	238	23	1,043
8:45 AM	10	26	77	52	45	58	44	287	23	84	295	32	1,033
VOLUMES	133	447	674	359	382	426	392	2,342	153	561	2,206	232	8,307
APPROACH %	11%	36%	54%	31%	33%	37%	14%	81%	5%	19%	74%	8%	
APP/DEPART	1,254	/	1,064	1,167	/	956	2,887	/	3,515	2,999	/	2,772	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	83	272	361	193	226	245	247	1,265	91	279	1,211	134	4,607
APPROACH %	12%	38%	50%	29%	34%	37%	15%	79%	6%	17%	75%	8%	
PEAK HR FACTOR	0.913			0.938			0.952			0.902			0.946
APP/DEPART	716	/	648	664	/	524	1,603	/	1,891	1,624	/	1,544	0
4:00 PM	34	62	76	46	55	58	67	348	33	119	273	43	1,214
4:15 PM	27	64	80	50	69	54	60	360	38	127	347	57	1,333
4:30 PM	47	75	76	60	59	65	56	292	35	128	318	46	1,257
4:45 PM	32	65	73	43	54	44	52	331	32	136	403	53	1,318
5:00 PM	43	71	79	73	74	68	66	267	30	121	303	56	1,251
5:15 PM	44	71	120	57	84	54	49	290	26	161	369	44	1,369
5:30 PM	53	58	89	71	65	61	41	339	25	130	349	48	1,329
5:45 PM	42	70	68	36	64	70	57	317	27	127	325	56	1,259
VOLUMES	322	536	661	436	524	474	448	2,544	246	1,049	2,687	403	10,330
APPROACH %	21%	35%	44%	30%	37%	33%	14%	79%	8%	25%	65%	10%	
APP/DEPART	1,519	/	1,377	1,434	/	1,556	3,238	/	3,904	4,139	/	3,493	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	172	265	361	244	277	227	208	1,227	113	548	1,424	201	5,267
APPROACH %	22%	33%	45%	33%	37%	30%	13%	79%	7%	25%	66%	9%	
PEAK HR FACTOR	0.849			0.870			0.933			0.918			0.962
APP/DEPART	798	/	670	748	/	798	1,548	/	1,972	2,173	/	1,827	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	14
0	0	2	14	16
0	0	1	9	10
0	0	2	31	33
0	0	1	14	15
0	0	1	18	19
0	0	0	18	18
0	0	0	22	22
0	0	7	140	147

0	0	1	27	28
0	0	1	31	32
0	0	4	36	40
0	0	3	36	39
0	0	0	33	33
0	0	1	45	46
0	0	0	26	26
0	0	0	29	29
0	0	10	263	273



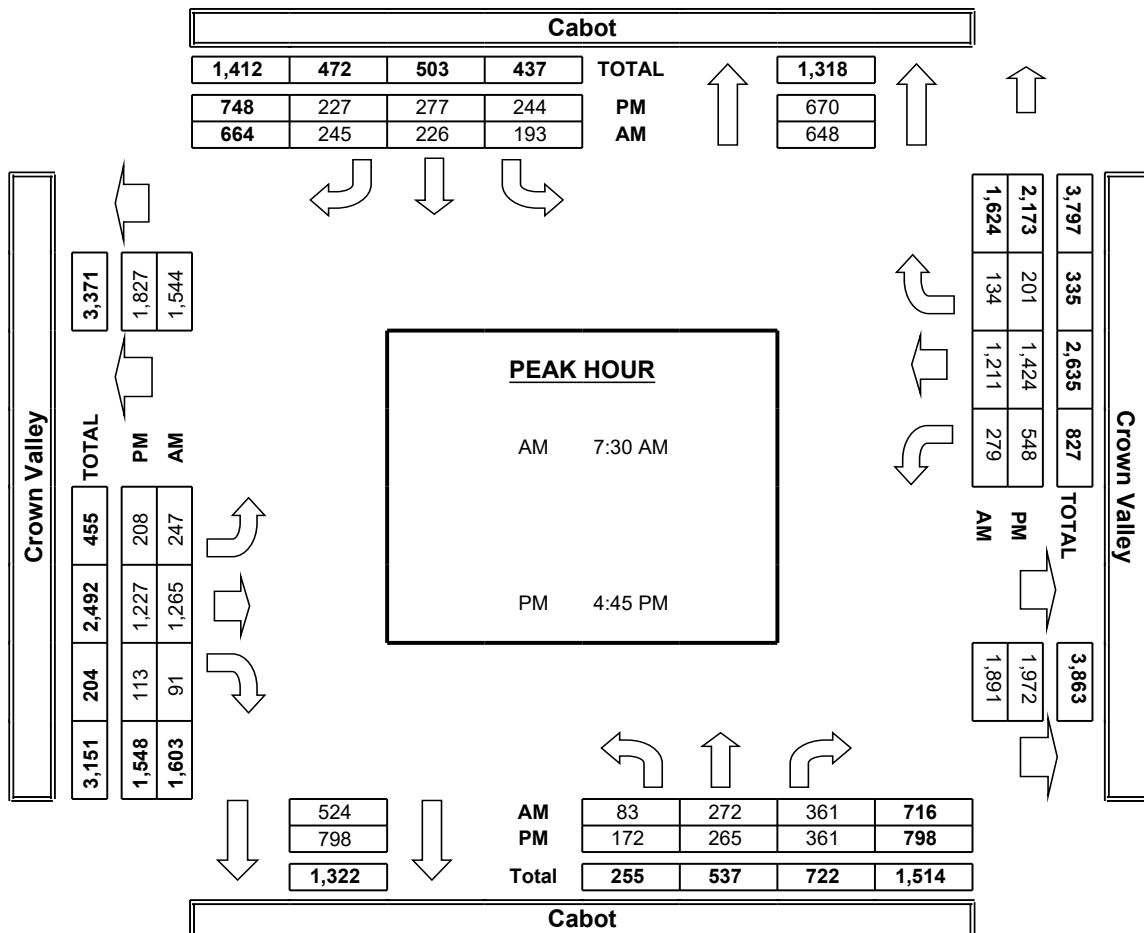
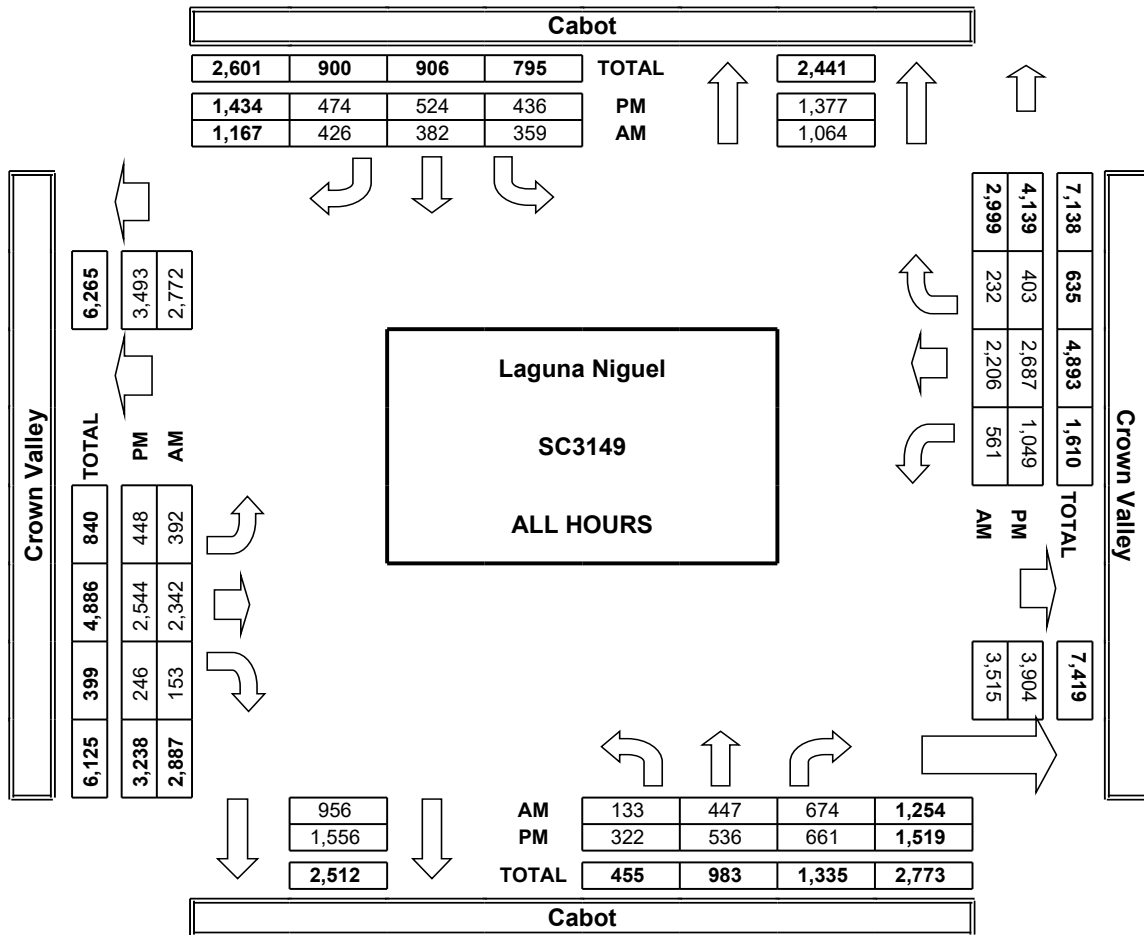
AM	7:00 AM	
AM	7:15 AM	
AM	7:30 AM	
AM	7:45 AM	
AM	8:00 AM	
AM	8:15 AM	
AM	8:30 AM	
AM	8:45 AM	
AM	TOTAL	
AM	AM BEGIN PEAK HR	
PM	4:00 PM	
PM	4:15 PM	
PM	4:30 PM	
PM	4:45 PM	
PM	5:00 PM	
PM	5:15 PM	
PM	5:30 PM	
PM	5:45 PM	
PM	TOTAL	
PM	PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	2	0	0	3
1	2	0	2	4
0	0	1	0	1
0	0	0	0	0
1	1	0	0	2
0	2	1	0	3
0	1	1	0	2
1	0	0	0	1
3	8	3	2	16
7:30 AM				
0	1	1	0	2
2	1	0	0	3
0	0	0	0	0
0	1	0	0	1
3	1	0	0	4
0	1	1	0	2
2	1	1	0	4
0	0	0	0	0
7	6	3	0	16
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	2	0	2	4
0	0	1	0	1
0	0	0	0	0
1	1	0	0	2
0	1	1	0	2
0	0	1	0	1
1	0	0	0	1
2	5	3	2	12
1	2	2	0	5
0	0	1	0	1
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
2	1	0	0	3
0	1	0	0	1
2	1	0	0	3
0	0	0	0	0
6	3	1	0	10
4	3	0	0	7

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
1	3	2	0	6

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Cabot
Crown Valley

PROJECT #: SC3149
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲
N
◀ W
S
▼

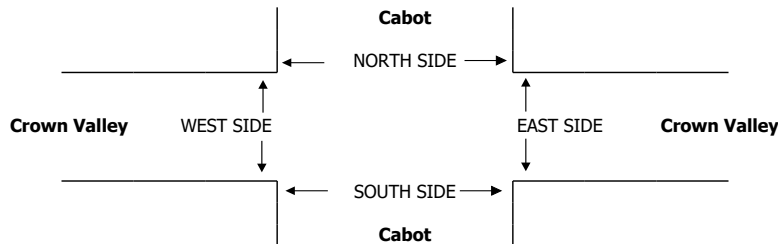
E ▶

☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Crown Valley			Crown Valley			
LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
7:00 AM	10	27	66	16	18	17	21	192	12	40	214	22	655
7:15 AM	17	60	83	43	35	34	30	277	10	54	221	29	893
7:30 AM	11	48	82	38	39	70	61	326	19	66	328	36	1,124
7:45 AM	28	71	89	62	65	45	79	356	25	87	295	37	1,239
8:00 AM	18	65	71	62	69	65	56	296	32	67	305	48	1,154
8:15 AM	20	55	78	47	44	58	49	294	26	90	341	46	1,148
8:30 AM	33	59	88	55	47	40	52	294	23	58	229	33	1,011
8:45 AM	28	52	80	53	34	46	40	322	21	69	298	34	1,077
VOLUMES	165	437	637	376	351	375	388	2,357	168	531	2,231	285	8,301
APPROACH %	13%	35%	51%	34%	32%	34%	13%	81%	6%	17%	73%	9%	
APP/DEPART	1,239	/	1,103	1,102	/	938	2,913	/	3,482	3,047	/	2,778	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	77	239	320	209	217	238	245	1,272	102	310	1,269	167	4,665
APPROACH %	12%	38%	50%	31%	33%	36%	15%	79%	6%	18%	73%	10%	
PEAK HR FACTOR	0.846			0.847			0.880			0.915			0.941
APP/DEPART	636	/	647	664	/	561	1,619	/	1,869	1,746	/	1,588	0
4:00 PM	31	75	77	42	69	43	51	354	36	109	328	46	1,261
4:15 PM	41	62	88	52	49	48	51	333	37	142	387	53	1,343
4:30 PM	49	79	74	60	86	61	54	301	33	116	319	42	1,274
4:45 PM	35	48	71	46	62	43	62	343	28	156	380	64	1,338
5:00 PM	41	68	70	59	65	55	46	273	28	134	316	61	1,216
5:15 PM	38	71	114	61	78	66	71	299	27	163	371	57	1,416
5:30 PM	47	74	94	67	64	47	57	370	25	117	318	35	1,315
5:45 PM	43	54	75	42	62	54	41	296	23	164	348	41	1,243
VOLUMES	325	531	663	429	535	417	433	2,569	237	1,101	2,767	399	10,406
APPROACH %	21%	35%	44%	31%	39%	30%	13%	79%	7%	26%	65%	9%	
APP/DEPART	1,519	/	1,349	1,381	/	1,600	3,239	/	3,934	4,267	/	3,523	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	161	261	349	233	269	211	236	1,285	108	570	1,385	217	5,285
APPROACH %	21%	34%	45%	33%	38%	30%	14%	79%	7%	26%	64%	10%	
PEAK HR FACTOR	0.864			0.870			0.901			0.905			0.933
APP/DEPART	771	/	704	713	/	809	1,629	/	2,005	2,172	/	1,767	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	10	10
0	0	1	8	9
0	0	1	14	15
1	0	1	17	19
0	1	0	18	19
0	0	3	20	23
0	0	1	16	17
0	0	1	10	11
1	1	8	113	123

0	0	1	23	24
0	0	0	41	41
0	0	1	24	25
0	0	3	43	46
0	0	3	34	37
0	0	4	43	47
0	0	0	18	18
0	0	2	47	49
0	0	14	273	287



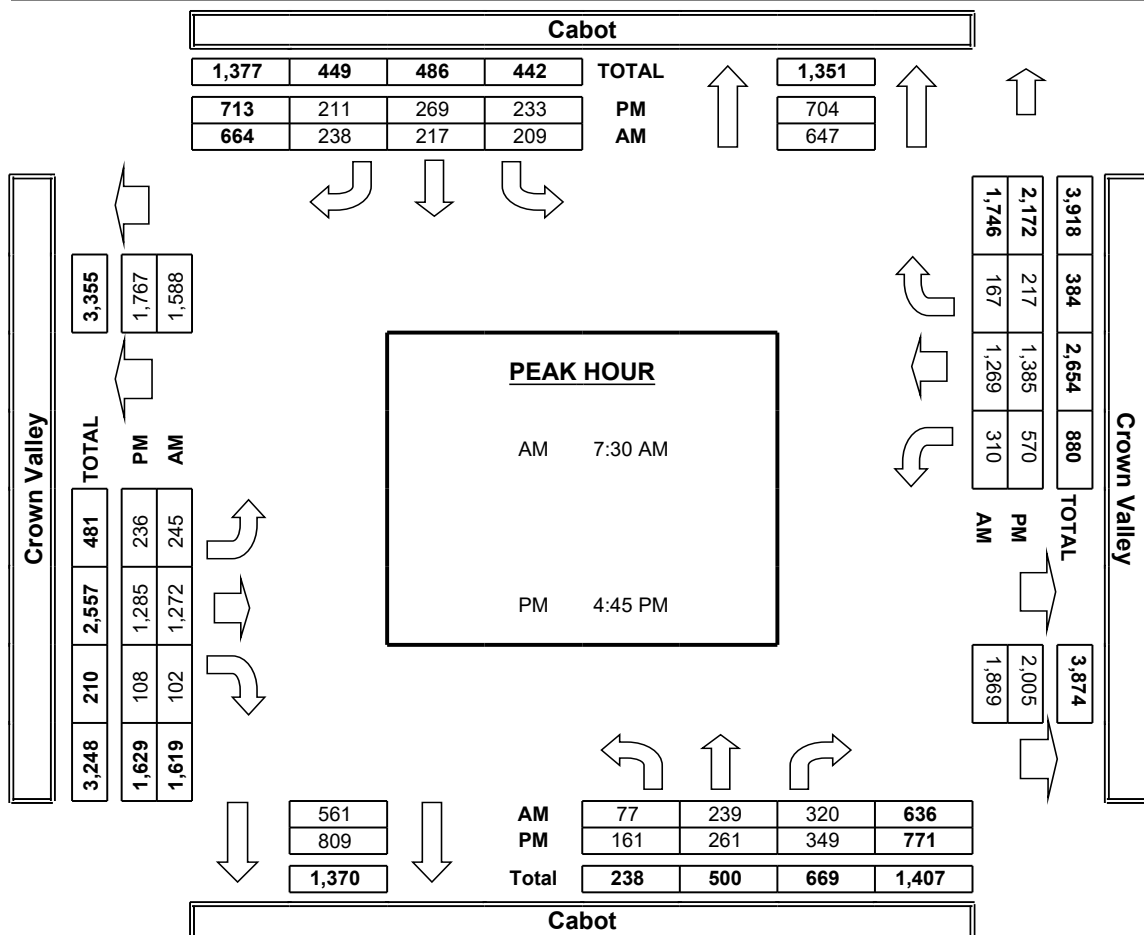
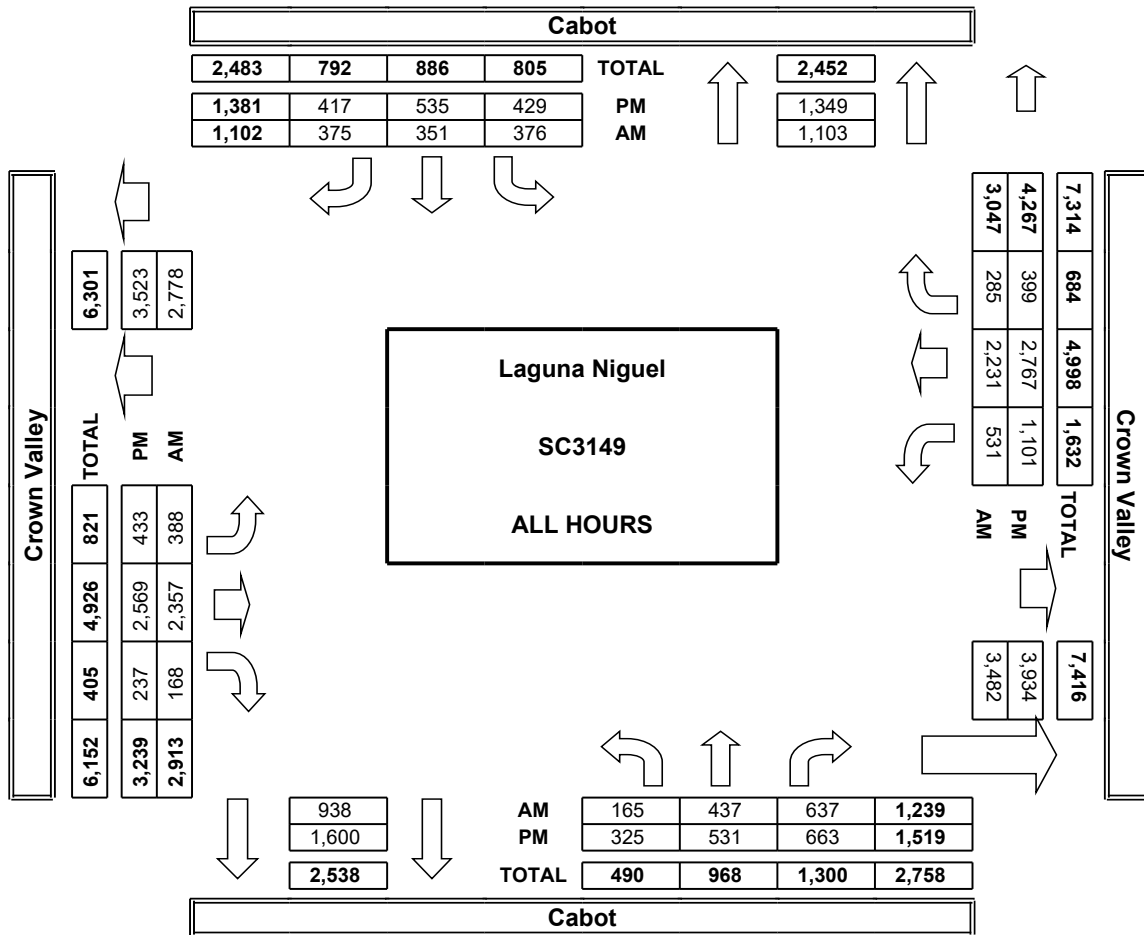
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
	AM BEGIN PEAK HR
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
	PM BEGIN PEAK HR

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	0	2
0	1	0	0	1
0	0	1	0	1
1	1	1	0	3
0	1	0	1	2
0	0	1	1	2
0	0	0	0	0
1	0	0	0	1
4	3	3	2	12
7:30 AM				
0	1	1	0	2
0	3	1	0	4
0	0	0	0	0
2	0	1	0	3
1	2	0	0	3
0	1	1	0	2
0	1	0	1	2
0	1	0	0	1
3	9	4	1	17
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	0	2
0	1	0	0	1
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
1	0	0	0	1
3	2	2	1	8
0	1	2	1	4
0	1	1	0	2
0	2	1	0	3
0	0	0	0	0
2	0	1	0	3
0	2	0	0	2
0	1	0	0	1
0	1	0	1	2
0	0	0	0	0
2	7	3	1	13
2	4	1	1	8

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
1	0	0	0	1
0	1	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	1	1	4
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
1	2	1	0	4

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: Costco Dwy
Crown Valley

PROJECT #: SC3149
LOCATION #: 5
CONTROL: STOP N

NOTES:

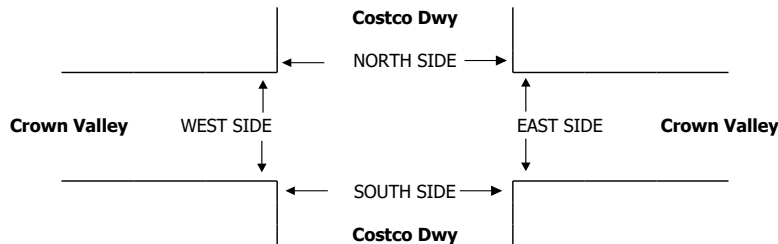
AM	▲ ◀ W ▶ E ▼	N S
PM		
MD		
OTHER		

☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Costco Dwy			Costco Dwy			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	1	X	X	X	X	4	0	X	3	X	
7:00 AM	0	0	21	0	0	0	0	0	29	0	0	0	50
7:15 AM	0	0	22	0	0	0	0	0	27	0	0	0	49
7:30 AM	0	0	32	0	0	0	0	0	26	0	0	0	58
7:45 AM	0	0	18	0	0	0	0	0	45	0	0	0	63
8:00 AM	0	0	29	0	0	0	0	0	39	0	0	0	68
8:15 AM	0	0	24	0	0	0	0	0	31	0	0	0	55
8:30 AM	0	0	29	0	0	0	0	0	34	0	0	0	63
8:45 AM	0	0	27	0	0	0	0	0	35	0	0	0	62
VOLUMES	0	0	202	0	0	0	0	0	266	0	0	0	468
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
APP/DEPART	202	/	0	0	/	266	266	/	202	0	/	0	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	0	100	0	0	0	0	0	149	0	0	0	249
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR	0.862			0.000			0.828			0.000			0.915
APP/DEPART	100	/	0	0	/	149	149	/	100	0	/	0	0
4:00 PM	0	0	52	0	0	0	0	0	34	0	0	0	86
4:15 PM	0	0	43	0	0	0	0	0	40	0	0	0	83
4:30 PM	0	0	64	0	0	0	0	0	51	0	0	0	115
4:45 PM	0	0	38	0	0	0	0	0	54	0	0	0	92
5:00 PM	0	0	45	0	0	0	0	0	52	0	0	0	97
5:15 PM	0	0	59	0	0	0	0	0	61	0	0	0	120
5:30 PM	0	0	55	0	0	0	0	0	38	0	0	0	93
5:45 PM	0	0	50	0	0	0	0	0	40	0	0	0	90
VOLUMES	0	0	406	0	0	0	0	0	370	0	0	0	776
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
APP/DEPART	406	/	0	0	/	370	370	/	406	0	/	0	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	0	0	206	0	0	0	0	0	218	0	0	0	424
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR	0.805			0.000			0.893			0.000			0.883
APP/DEPART	206	/	0	0	/	218	218	/	206	0	/	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	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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



	AM	PM
7:00 AM	0	0
7:15 AM	0	0
7:30 AM	0	0
7:45 AM	0	0
8:00 AM	0	0
8:15 AM	0	0
8:30 AM	0	0
8:45 AM	0	0
TOTAL	0	0
AM BEGIN PEAK HR		
4:00 PM		0
4:15 PM		0
4:30 PM		0
4:45 PM		0
5:00 PM		0
5:15 PM		0
5:30 PM		0
5:45 PM		0
TOTAL		0
PM BEGIN PEAK HR		

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	2	0	0	2
0	3	0	0	3
0	0	0	0	0
0	10	0	0	10
7:45 AM				
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	5	0	0	5
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	7	0	0	7
0	5	0	0	5
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	2	0	0	2

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
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	3	0	0	3

The diagram illustrates the traffic flow and volume data for Laguna Niguel SC3149, comparing all hours of operation with peak hour conditions. The central intersection is labeled "Laguna Niguel SC3149".

ALL HOURS

Costco Dwy (Northbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Costco Dwy (Southbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Crown Valley (Eastbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Crown Valley (Westbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Intersection Volumes (All Hours):

266	370	636
266	370	636
636	370	266
636	370	266

Costco Dwy (Northbound):

0	0	202	202
0	0	406	406
0	0	608	608

Costco Dwy (Southbound):

0	0	202	202
0	0	406	406
0	0	608	608

Crown Valley (Eastbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 608
PM: 406
AM: 202

Crown Valley (Westbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 608
PM: 406
AM: 202

PEAK HOUR

Costco Dwy (Northbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Costco Dwy (Southbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Crown Valley (Eastbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Crown Valley (Westbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 0
PM: 0
AM: 0

Intersection Volumes (Peak Hour):

149	218	367
149	218	367
367	218	149
367	218	149

Costco Dwy (Northbound):

0	0	100	100
0	0	206	206
0	0	306	306

Costco Dwy (Southbound):

0	0	100	100
0	0	206	206
0	0	306	306

Crown Valley (Eastbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 306
PM: 206
AM: 100

Crown Valley (Westbound):

0	0	0	0
0	0	0	0
0	0	0	0

TOTAL: 306
PM: 206
AM: 100

INTERSECTION TURNING MOVEMENT COUNTS

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

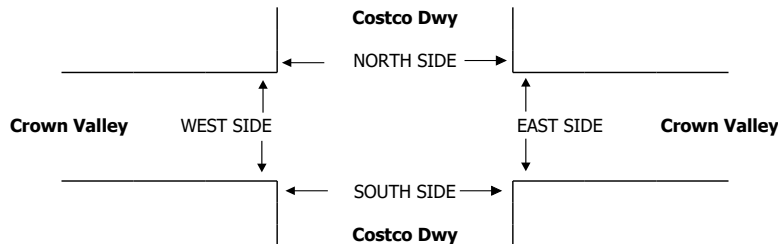
T218

DATE: Wed, Nov 3, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Niguel Costco Dwy Crown Valley	PROJECT #: LOCATION #: CONTROL:	SC3149 5 STOP N
NOTES:			AM PM MD OTHER OTHER ▲ ◀ W ▶ E ▼ N S	☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Costco Dwy			Costco Dwy			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	1	X	X	X	X	4	0	X	3	X	
7:00 AM	0	0	16	0	0	0	0	0	14	0	0	0	30
7:15 AM	0	0	11	0	0	0	0	0	16	0	0	0	27
7:30 AM	0	0	21	0	0	0	0	0	24	0	0	0	45
7:45 AM	0	0	18	0	0	0	0	0	31	0	0	0	49
8:00 AM	0	0	25	0	0	0	0	0	21	0	0	0	46
8:15 AM	0	0	18	0	0	0	0	0	21	0	0	0	39
8:30 AM	0	0	31	0	0	0	0	0	36	0	0	0	67
8:45 AM	0	0	26	0	0	0	0	0	19	0	0	0	45
VOLUMES	0	0	166	0	0	0	0	0	182	0	0	0	348
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
APP/DEPART	166	/	0	0	/	182	182	/	166	0	/	0	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	0	92	0	0	0	0	0	109	0	0	0	201
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR	0.742			0.000			0.757			0.000			0.750
APP/DEPART	92	/	0	0	/	109	109	/	92	0	/	0	0
4:00 PM	0	0	49	0	0	0	0	0	36	0	0	0	85
4:15 PM	0	0	39	0	0	0	0	0	56	0	0	0	95
4:30 PM	0	0	65	0	0	0	0	0	42	0	0	0	107
4:45 PM	0	0	42	0	0	0	0	0	68	0	0	0	110
5:00 PM	0	0	64	0	0	0	0	0	53	0	0	0	117
5:15 PM	0	0	56	0	0	0	0	0	60	0	0	0	116
5:30 PM	0	0	51	0	0	0	0	0	40	0	0	0	91
5:45 PM	0	0	54	0	0	0	0	0	62	0	0	0	116
VOLUMES	0	0	420	0	0	0	0	0	417	0	0	0	837
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
APP/DEPART	420	/	0	0	/	417	417	/	420	0	/	0	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	0	0	227	0	0	0	0	0	223	0	0	0	450
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR	0.873			0.000			0.820			0.000			0.962
APP/DEPART	227	/	0	0	/	223	223	/	227	0	/	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	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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	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	
PM	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	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	5	0	0	5
7:45 AM				
1	0	0	0	1
0	5	0	0	5
0	1	0	0	1
0	0	0	0	0
2	0	0	0	2
0	2	0	0	2
0	0	0	0	0
0	1	0	0	1
3	9	0	0	12
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	4	0	0	4
0	3	0	0	3
1	0	0	0	1
0	3	0	0	3
0	1	0	0	1
0	0	0	0	0
2	0	0	0	2
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	5	0	0	8
2	2	0	0	4

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	4	0	0	4

The diagram illustrates the traffic flow and vehicle counts for Laguna Niguel SC3149. It is divided into two main sections: **ALL HOURS** and **PEAK HOUR**.

ALL HOURS:

- Central Area:** Laguna Niguel SC3149 ALL HOURS.
- Costco Dwy (Top):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Costco Dwy (Bottom):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Left Side (Crown Valley):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Right Side (Crown Valley):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Vehicle Counts (ALL HOURS):**
 - Left Side: 599 (TOTAL), 417 (PM), 182 (AM)
 - Right Side: 586 (TOTAL), 420 (PM), 166 (AM)
 - Costco Dwy (Bottom): 599 (TOTAL), 417 (PM), 182 (AM)
 - Costco Dwy (Top): 586 (TOTAL), 420 (PM), 166 (AM)

PEAK HOUR:

- Central Area:** PEAK HOUR.
- Costco Dwy (Top):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Costco Dwy (Bottom):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Left Side (Crown Valley):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Right Side (Crown Valley):**
 - 0 0 0 0 TOTAL
 - 0 0 0 0 PM
 - 0 0 0 0 AM
- Vehicle Counts (PEAK HOUR):**
 - Left Side: 332 (TOTAL), 223 (PM), 109 (AM)
 - Right Side: 319 (TOTAL), 227 (PM), 92 (AM)
 - Costco Dwy (Bottom): 332 (TOTAL), 223 (PM), 109 (AM)
 - Costco Dwy (Top): 319 (TOTAL), 227 (PM), 92 (AM)

INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Greenfield
Crown Valley

PROJECT #: SC3149
LOCATION #: 5
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
OTHER				

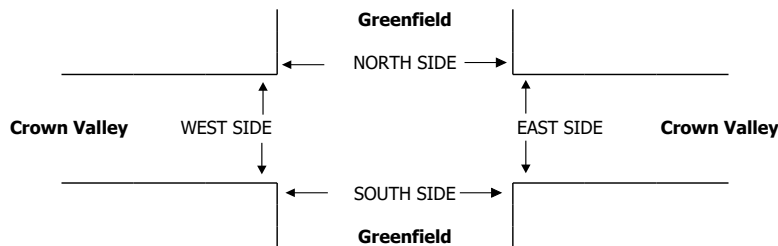
☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Greenfield			Greenfield			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0.5	1.5	0	2	1	1	2	3	0	1	3	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	5	8	75	1	18	45	164	0	1	177	70	564
	7:15 AM	6	14	11	95	3	25	86	202	0	0	210	88	740
	7:30 AM	11	21	16	143	7	46	82	279	3	2	253	122	985
	7:45 AM	4	4	15	141	11	43	114	247	3	2	241	145	970
	8:00 AM	12	19	9	146	5	61	86	197	1	6	211	127	880
	8:15 AM	5	8	12	114	8	43	124	268	1	6	263	164	1,016
	8:30 AM	4	11	11	122	4	37	101	257	3	5	180	134	869
	8:45 AM	4	12	11	126	4	34	95	185	6	4	220	128	829
	VOLUMES	46	94	93	962	43	307	733	1,799	17	26	1,755	978	6,853
	APPROACH %	20%	40%	40%	73%	3%	23%	29%	71%	1%	1%	64%	35%	
APP/DEPART		233	/	1,747	1,312	/	84	2,549	/	2,856	2,759	/	2,166	0
BEGIN PEAK HR		7:30 AM												
PM	VOLUMES	32	52	52	544	31	193	406	991	8	16	968	558	3,851
	APPROACH %	24%	38%	38%	71%	4%	25%	29%	71%	1%	1%	63%	36%	
	PEAK HR FACTOR	0.708			0.906			0.894			0.890			0.948
	APP/DEPART	136	/	984	768	/	53	1,405	/	1,589	1,542	/	1,225	0
	4:00 PM	4	7	7	167	20	73	76	244	2	2	235	127	964
	4:15 PM	7	4	6	156	9	59	77	260	2	11	265	153	1,009
	4:30 PM	7	3	8	137	13	52	75	257	2	6	264	164	988
	4:45 PM	10	7	5	191	17	82	72	217	7	8	306	168	1,090
	5:00 PM	5	10	6	135	20	66	73	216	6	8	249	157	951
	5:15 PM	4	13	8	184	24	62	66	200	6	10	275	183	1,035
PM	5:30 PM	4	5	6	162	21	65	83	211	0	13	281	169	1,020
	5:45 PM	3	5	9	200	21	51	68	202	5	10	281	143	998
	VOLUMES	44	54	55	1,332	145	510	590	1,807	30	68	2,156	1,264	8,055
	APPROACH %	29%	35%	36%	67%	7%	26%	24%	74%	1%	2%	62%	36%	
	APP/DEPART	153	/	1,795	1,987	/	238	2,427	/	3,199	3,488	/	2,823	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	23	35	25	672	82	275	294	844	19	39	1,111	677	4,096
	APPROACH %	28%	42%	30%	65%	8%	27%	25%	73%	2%	2%	61%	37%	
	PEAK HR FACTOR	0.830			0.887			0.977			0.948			0.939
	APP/DEPART	83	/	949	1,029	/	136	1,157	/	1,545	1,827	/	1,466	0

0	0	18	0	18
0	0	13	1	14
0	0	8	0	8
0	0	14	1	15
0	0	11	1	12
0	0	16	0	16
0	0	16	2	18
0	0	17	0	17
0	0	113	5	118



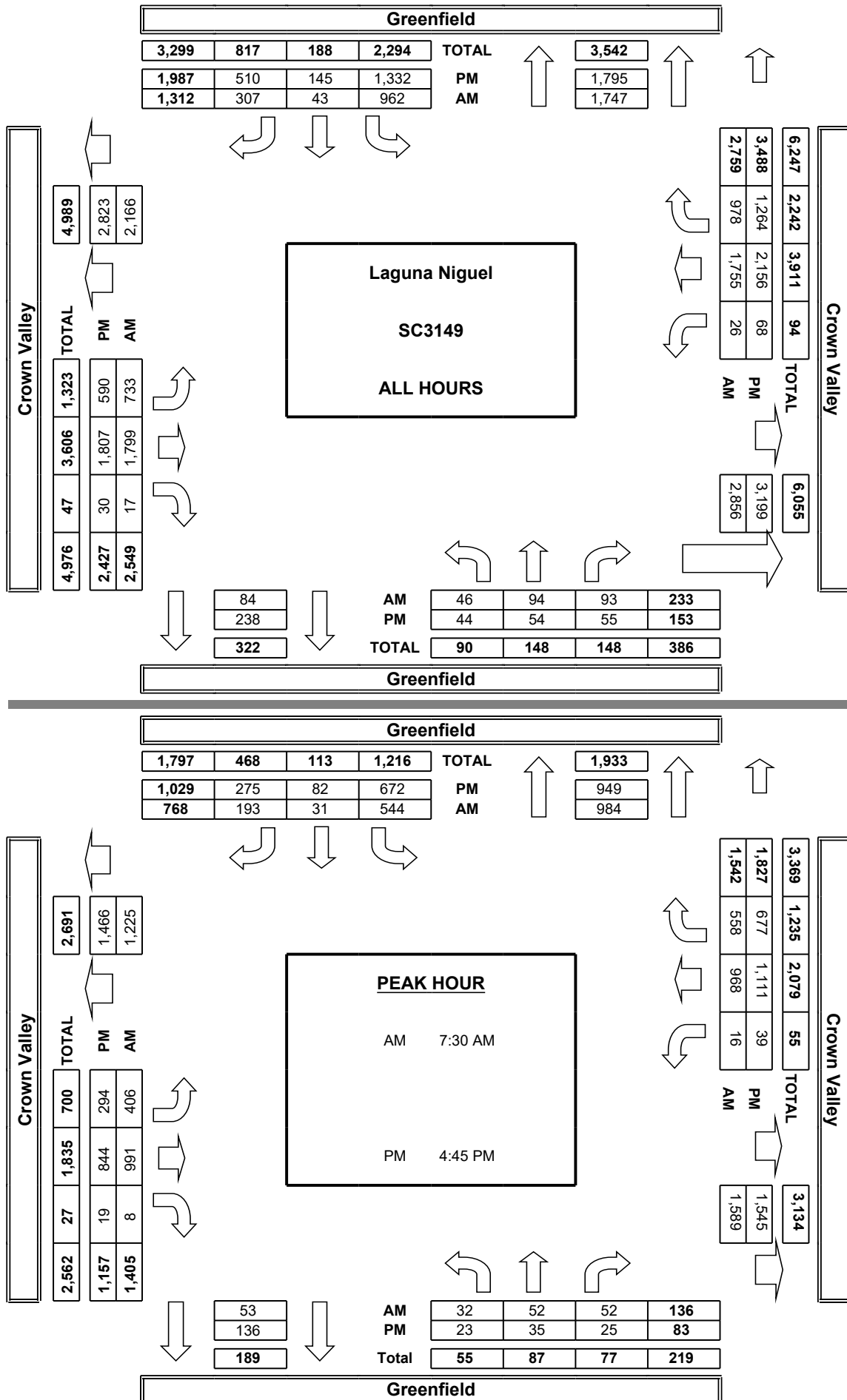
AM	7:00 AM	
	7:15 AM	
	7:30 AM	
	7:45 AM	
	8:00 AM	
	8:15 AM	
	8:30 AM	
	8:45 AM	
	TOTAL	
	AM BEGIN PEAK HR	
PM	4:00 PM	
	4:15 PM	
	4:30 PM	
	4:45 PM	
	5:00 PM	
	5:15 PM	
	5:30 PM	
	5:45 PM	
	TOTAL	
	PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	2	4
1	0	0	1	4
1	0	0	3	4
0	0	0	2	2
0	0	0	1	1
1	0	0	1	2
0	2	1	1	4
0	0	0	1	1
3	3	1	12	19
7:30 AM				
8	0	0	2	10
1	2	0	1	4
0	0	0	1	1
1	1	0	0	2
2	0	0	1	3
2	0	0	0	2
0	2	0	0	2
0	0	0	0	0
14	5	0	5	24
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	1	2
0	0	0	1	1
1	0	0	1	2
0	0	0	1	1
0	0	0	1	1
1	0	0	0	1
0	0	0	0	0
0	0	0	1	1
3	0	0	6	9
2	0	0	3	5
8	0	0	1	9
1	2	0	0	3
0	0	0	1	1
1	0	0	0	1
1	0	0	1	2
2	0	0	0	2
0	2	0	0	2
0	0	0	0	0
13	4	0	3	20
4	2	0	1	7

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	0	1	2
0	0	0	0	0
0	0	0	2	2
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	2	1	1	4
0	0	0	0	0
0	3	1	6	10
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	1	0	0	1
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	2	4

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

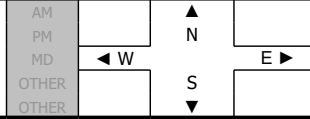
DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Greenfield
Crown Valley

PROJECT #: SC3149
LOCATION #: 5
CONTROL: SIGNAL

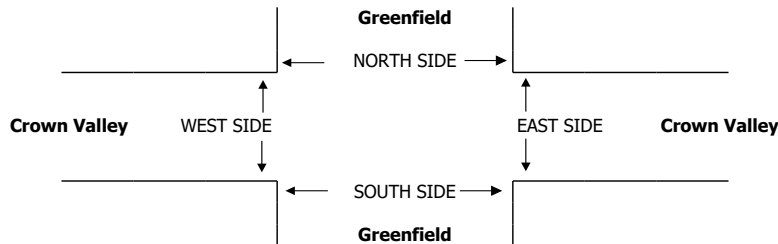
NOTES:



	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Greenfield			Greenfield			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0.5	1.5	0	2	1	1	2	3	0	1	3	1	
AM													
7:00 AM	1	4	5	78	1	28	37	162	3	2	184	55	560
7:15 AM	5	13	16	94	7	35	51	212	1	0	190	83	707
7:30 AM	10	11	13	132	9	50	74	238	0	4	276	130	947
7:45 AM	6	9	14	146	6	50	117	317	4	4	235	129	1,037
8:00 AM	5	11	11	137	5	40	101	211	4	3	261	124	913
8:15 AM	5	15	3	112	10	55	112	258	3	9	225	188	995
8:30 AM	5	13	7	125	6	26	103	250	6	5	175	123	844
8:45 AM	3	5	12	133	10	45	107	196	2	7	234	127	881
VOLUMES	40	81	81	957	54	329	702	1,844	23	34	1,780	959	6,884
APPROACH %	20%	40%	40%	71%	4%	25%	27%	72%	1%	1%	64%	35%	
APP/DEPART	202	/	1,682	1,340	/	108	2,569	/	2,885	2,773	/	2,209	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	26	46	41	527	30	195	404	1,024	11	20	997	571	3,892
APPROACH %	23%	41%	36%	70%	4%	26%	28%	71%	1%	1%	63%	36%	
PEAK HR FACTOR	0.831			0.931			0.821			0.941			0.938
APP/DEPART	113	/	993	752	/	60	1,439	/	1,593	1,588	/	1,246	0
PM													
4:00 PM	11	8	9	135	11	68	84	261	0	9	230	158	984
4:15 PM	9	6	5	151	15	77	80	227	4	8	320	148	1,050
4:30 PM	7	5	6	148	9	75	82	237	11	6	260	164	1,010
4:45 PM	4	3	7	170	29	67	85	224	2	6	309	146	1,052
5:00 PM	8	6	8	151	23	61	91	226	5	7	251	157	994
5:15 PM	11	14	5	200	23	76	82	202	6	9	281	189	1,098
5:30 PM	8	9	10	169	18	66	88	230	4	8	269	135	1,014
5:45 PM	10	8	7	187	16	66	69	177	2	4	289	149	984
VOLUMES	68	59	57	1,311	144	556	661	1,784	34	57	2,209	1,246	8,186
APPROACH %	37%	32%	31%	65%	7%	28%	27%	72%	1%	2%	63%	35%	
APP/DEPART	184	/	1,849	2,011	/	232	2,479	/	3,155	3,512	/	2,950	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	31	32	30	690	93	270	346	882	17	30	1,110	627	4,158
APPROACH %	33%	34%	32%	66%	9%	26%	28%	71%	1%	2%	63%	35%	
PEAK HR FACTOR	0.775			0.880			0.967			0.922			0.947
APP/DEPART	93	/	940	1,053	/	139	1,245	/	1,603	1,767	/	1,476	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	3
0	0	8	0	8
0	0	9	0	9
0	0	7	0	7
0	0	4	0	4
0	0	8	1	9
0	0	9	0	9
0	0	12	2	14
0	0	60	3	63

0	0	17	0	17
0	0	13	0	13
0	0	11	2	13
0	0	15	0	15
0	0	19	1	20
0	0	13	0	13
0	0	18	0	18
0	0	11	0	11
0	0	117	3	120



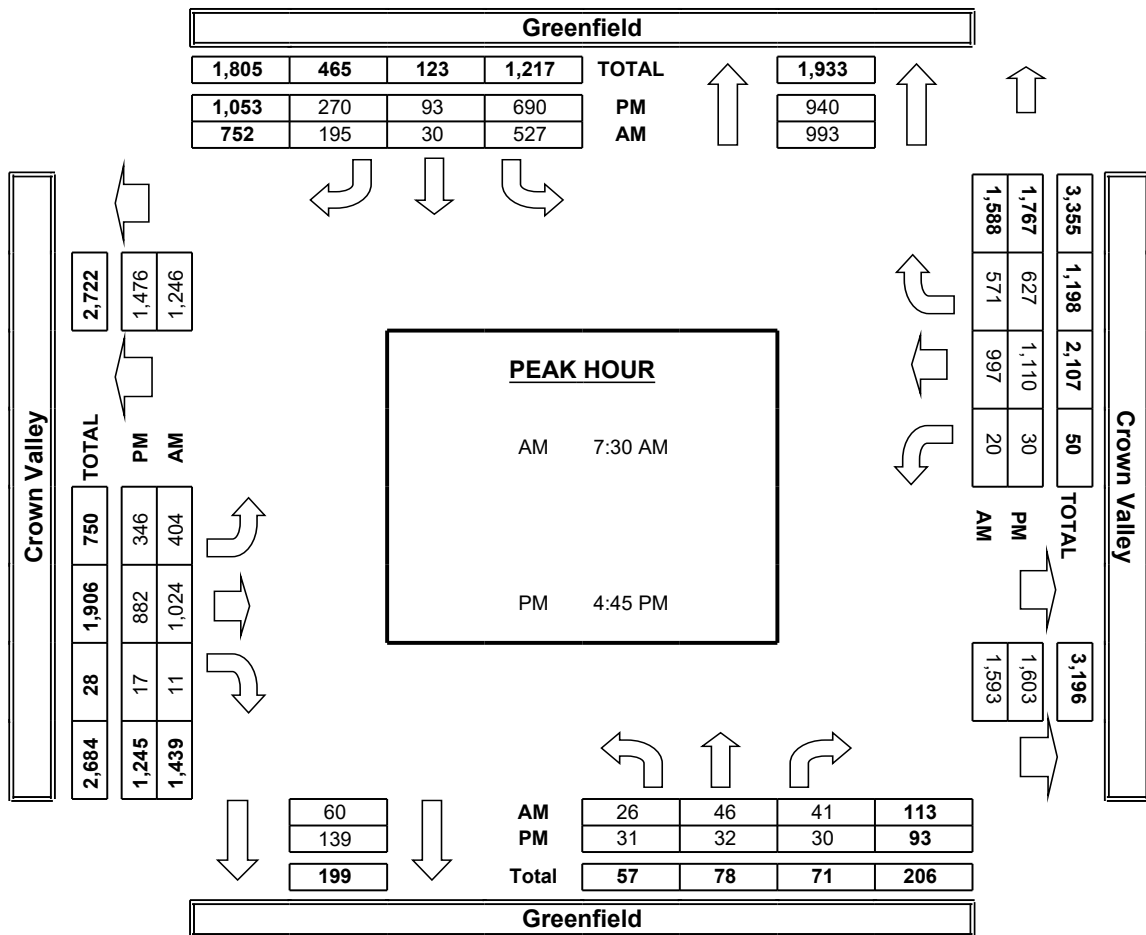
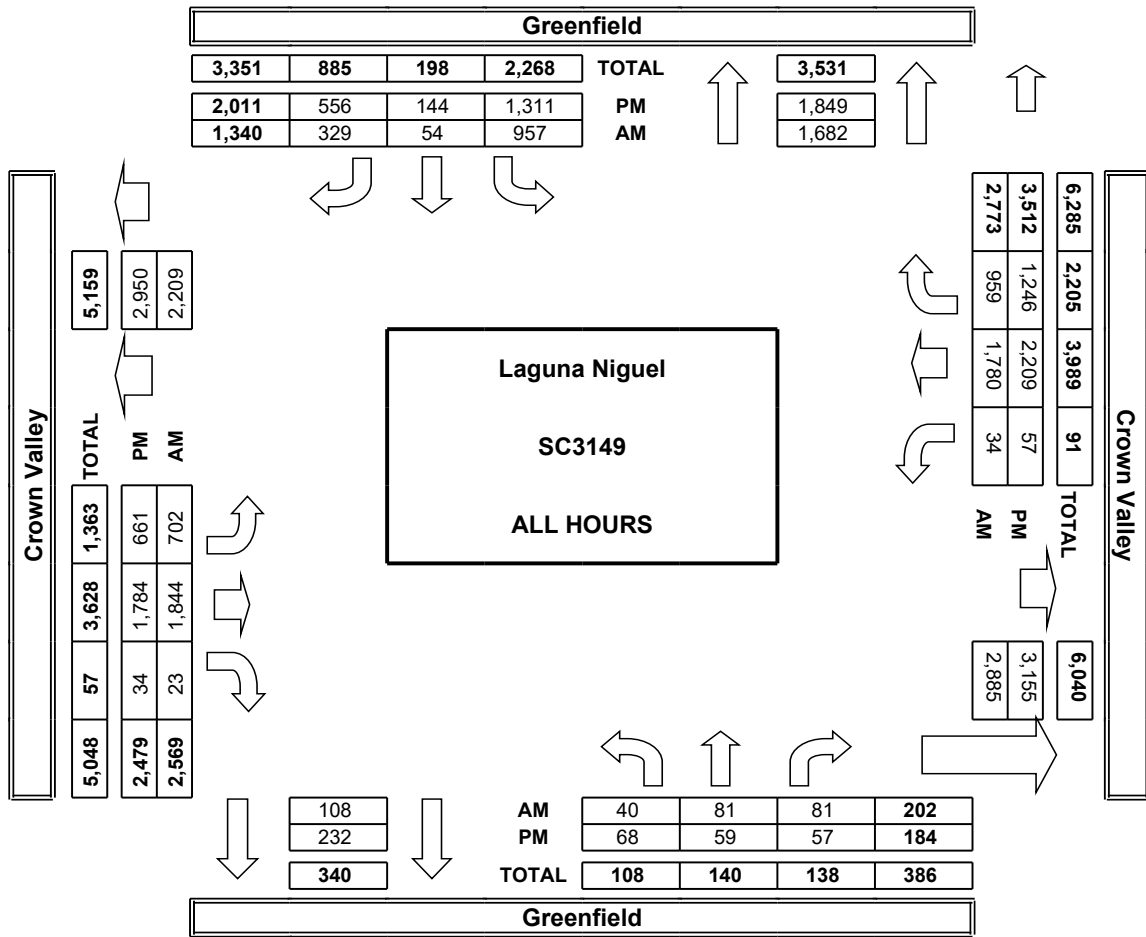
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
	AM BEGIN PEAK HR
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
	PM BEGIN PEAK HR

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
2	0	0	1	3
0	0	0	0	0
0	0	1	0	1
2	0	0	0	2
1	0	0	0	1
5	0	1	4	10
7:30 AM				
0	0	0	3	3
0	0	0	0	0
0	0	0	0	0
3	0	0	1	4
1	0	0	3	4
0	0	0	1	1
1	1	0	1	3
1	0	0	0	1
6	1	0	9	16
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
1	0	0	0	1
4	0	0	1	5
1	0	0	1	2
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
1	0	0	1	2
0	0	0	1	1
0	0	0	1	1
1	1	0	1	3
1	0	0	0	1
3	1	0	5	9
2	1	0	4	7

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
1	0	0	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
1	0	1	3	5
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
1	0	0	2	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	0	0	4	7

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

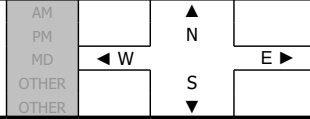
DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Greenfield
Rancho Niguel

PROJECT #: SC3149
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

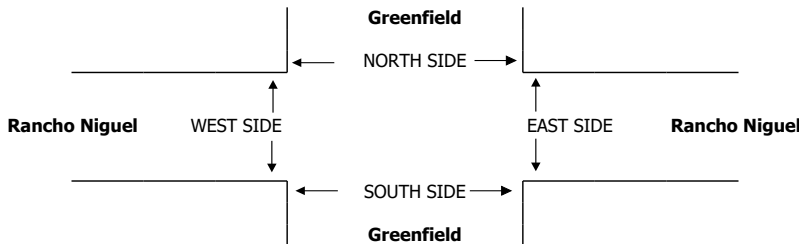


☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Greenfield			Greenfield			Rancho Niguel			Rancho Niguel			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1.5	0.5	1	1	1	0	
AM													
7:00 AM	25	52	25	10	29	35	72	9	53	25	5	3	343
7:15 AM	61	79	26	11	50	50	75	13	64	23	8	1	461
7:30 AM	57	128	22	15	68	77	100	22	90	21	4	10	614
7:45 AM	49	137	55	17	79	83	107	27	91	33	11	2	691
8:00 AM	49	122	52	25	92	69	94	30	69	24	10	3	639
8:15 AM	54	152	56	26	83	60	89	18	56	31	13	3	641
8:30 AM	38	133	50	28	71	61	90	23	58	26	9	3	590
8:45 AM	46	107	58	22	64	76	81	22	59	38	14	6	593
VOLUMES	379	910	344	154	536	511	708	164	540	221	74	31	4,572
APPROACH %	23%	56%	21%	13%	45%	43%	50%	12%	38%	68%	23%	10%	
APP/DEPART	1,633	/	1,652	1,201	/	1,307	1,412	/	659	326	/	954	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	209	539	185	83	322	289	390	97	306	109	38	18	2,585
APPROACH %	22%	58%	20%	12%	46%	42%	49%	12%	39%	66%	23%	11%	
PEAK HR FACTOR	0.890			0.933			0.881			0.878			0.935
APP/DEPART	933	/	949	694	/	746	793	/	363	165	/	527	0
PM													
4:00 PM	68	71	33	18	116	73	78	25	71	31	19	6	609
4:15 PM	105	91	26	24	103	103	71	18	64	31	19	8	663
4:30 PM	111	90	23	11	127	83	61	18	59	31	16	9	639
4:45 PM	78	95	26	21	128	89	87	14	61	42	12	5	658
5:00 PM	105	101	33	19	125	70	67	17	54	37	16	9	653
5:15 PM	94	90	30	21	130	95	93	18	61	53	22	7	714
5:30 PM	105	97	37	28	131	92	72	17	75	51	18	5	728
5:45 PM	101	71	42	18	124	73	52	23	65	41	19	2	631
VOLUMES	767	706	250	160	984	678	581	150	510	317	141	51	5,295
APPROACH %	45%	41%	15%	9%	54%	37%	47%	12%	41%	62%	28%	10%	
APP/DEPART	1,723	/	1,359	1,822	/	1,859	1,241	/	539	509	/	1,538	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	382	383	126	89	514	346	319	66	251	183	68	26	2,753
APPROACH %	43%	43%	14%	9%	54%	36%	50%	10%	39%	66%	25%	9%	
PEAK HR FACTOR	0.932			0.945			0.924			0.845			0.945
APP/DEPART	891	/	738	949	/	977	636	/	271	277	/	767	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
2	0	0	0	2
5	0	0	0	5
2	0	0	0	2
1	0	0	0	1
0	1	0	0	1
10	3	0	0	13

7	3	0	0	10
3	5	0	0	8
2	1	0	0	3
3	2	0	0	5
11	1	0	0	12
7	4	0	0	11
8	3	0	0	11
7	2	0	0	9
48	21	0	0	69



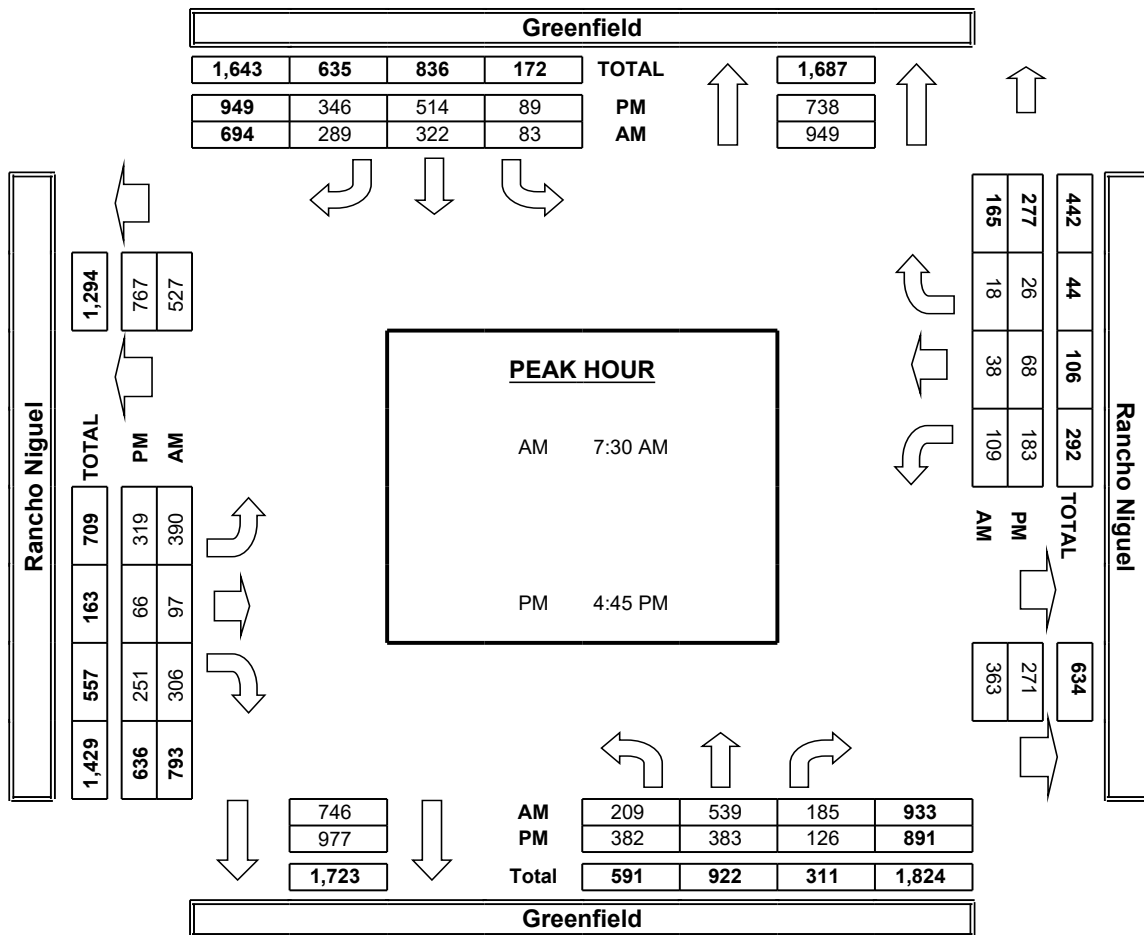
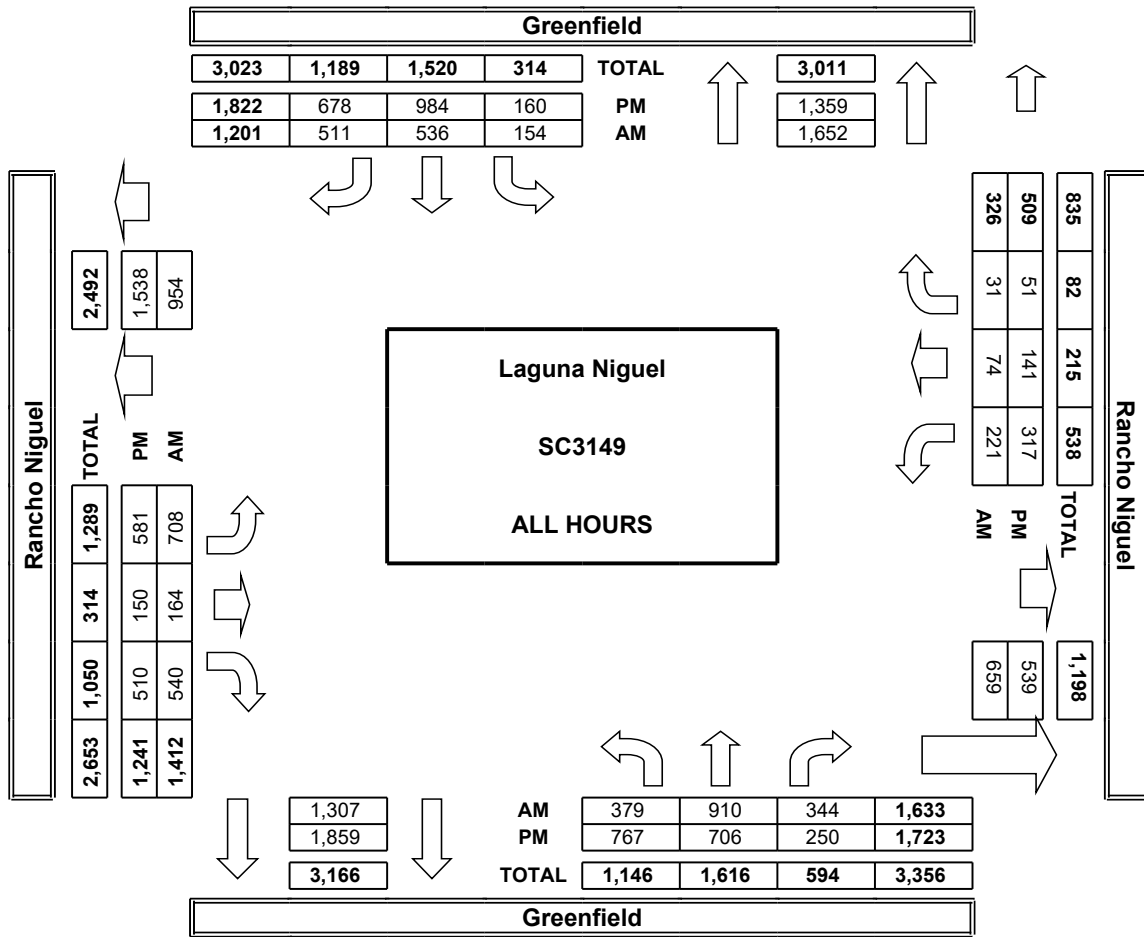
AM	
7:00 AM	
7:15 AM	
7:30 AM	
7:45 AM	
8:00 AM	
8:15 AM	
8:30 AM	
8:45 AM	
TOTAL	
AM BEGIN PEAK HR	
PM	
4:00 PM	
4:15 PM	
4:30 PM	
4:45 PM	
5:00 PM	
5:15 PM	
5:30 PM	
5:45 PM	
TOTAL	
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	3	0	1	4
2	2	0	0	4
0	0	0	0	0
0	4	0	1	5
0	0	0	0	0
1	1	0	1	3
3	10	0	3	16
7:30 AM				
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	9	2	0	12
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	9	2	0	12
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	3	0	1	4
2	2	0	0	4
0	0	0	0	0
0	4	0	1	5
0	0	0	0	0
1	1	0	1	3
3	10	0	3	16
2	9	0	2	13
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	9	2	0	11
0	0	0	0	0
0	9	2	0	11

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
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
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

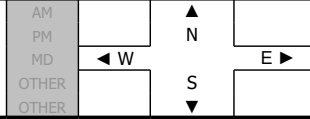
DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Greenfield
Rancho Niguel

PROJECT #: SC3149
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

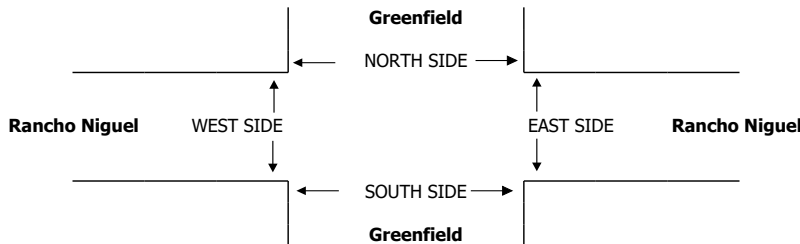


☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Greenfield			Greenfield			Rancho Niguel			Rancho Niguel			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1.5	0.5	1	1	1	0	
7:00 AM	23	39	23	10	25	46	67	11	49	32	13	2	340
7:15 AM	55	59	22	9	40	51	65	19	75	25	13	5	438
7:30 AM	77	111	20	11	70	86	94	17	95	20	6	6	613
7:45 AM	38	140	45	22	78	76	105	25	91	31	7	1	659
8:00 AM	33	152	45	26	74	65	110	15	59	34	12	4	629
8:15 AM	55	156	49	21	86	87	89	29	73	23	7	3	678
8:30 AM	44	135	50	25	66	58	70	19	62	36	17	2	584
8:45 AM	52	110	50	26	84	81	83	30	63	31	9	3	622
VOLUMES	377	902	304	150	523	550	683	165	567	232	84	26	4,563
APPROACH %	24%	57%	19%	12%	43%	45%	48%	12%	40%	68%	25%	8%	
APP/DEPART	1,583	/	1,614	1,223	/	1,333	1,415	/	616	342	/	1,000	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	203	559	159	80	308	314	398	86	318	108	32	14	2,579
APPROACH %	22%	61%	17%	11%	44%	45%	50%	11%	40%	70%	21%	9%	
PEAK HR FACTOR	0.886			0.905			0.907			0.770			0.951
APP/DEPART	921	/	972	702	/	740	802	/	324	154	/	543	0
4:00 PM	73	82	42	24	73	60	69	11	59	37	22	4	556
4:15 PM	99	87	28	30	147	79	75	19	50	34	13	8	669
4:30 PM	87	96	35	19	120	78	83	11	67	45	21	10	672
4:45 PM	88	98	18	18	119	90	73	20	68	39	13	8	652
5:00 PM	96	85	33	16	127	90	74	19	62	48	22	7	679
5:15 PM	95	122	53	32	151	105	69	24	66	50	24	8	799
5:30 PM	82	82	24	20	134	113	61	15	58	63	17	3	672
5:45 PM	92	92	24	23	127	89	78	21	67	38	22	3	676
VOLUMES	712	744	257	182	998	704	582	140	497	354	154	51	5,375
APPROACH %	42%	43%	15%	10%	53%	37%	48%	11%	41%	63%	28%	9%	
APP/DEPART	1,713	/	1,406	1,884	/	1,891	1,219	/	550	559	/	1,528	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	365	381	134	91	539	397	282	79	253	199	85	21	2,826
APPROACH %	41%	43%	15%	9%	52%	39%	46%	13%	41%	65%	28%	7%	
PEAK HR FACTOR	0.815			0.891			0.925			0.919			0.884
APP/DEPART	880	/	698	1,027	/	1,018	614	/	290	305	/	820	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
2	0	0	0	2
2	0	0	0	2
1	0	0	0	1
0	1	0	0	1
3	0	0	0	3
1	1	0	0	2
2	1	0	0	3
11	3	0	0	14

1	1	0	0	2
6	6	0	0	12
4	6	0	0	10
4	2	0	0	6
9	3	0	0	12
9	5	0	0	14
3	4	0	0	7
6	2	0	0	8
42	29	0	0	71



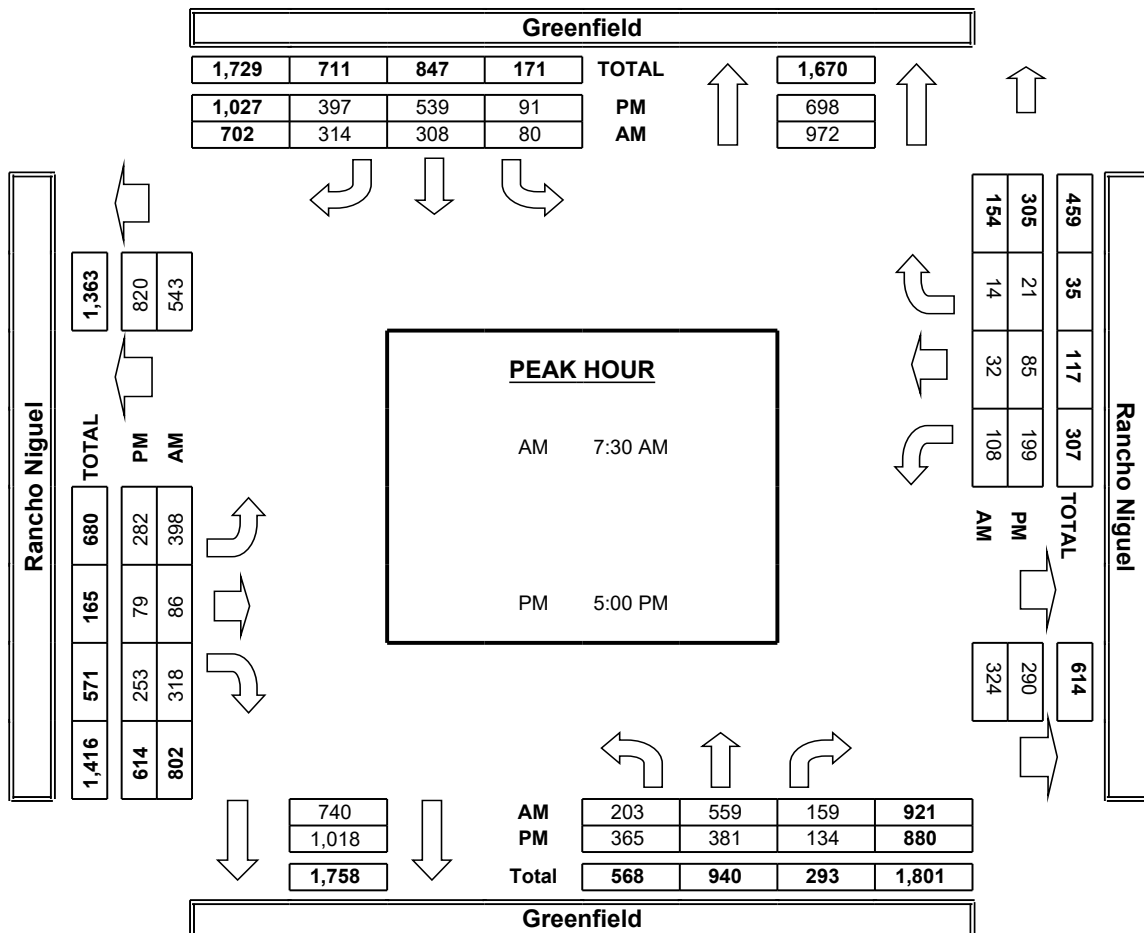
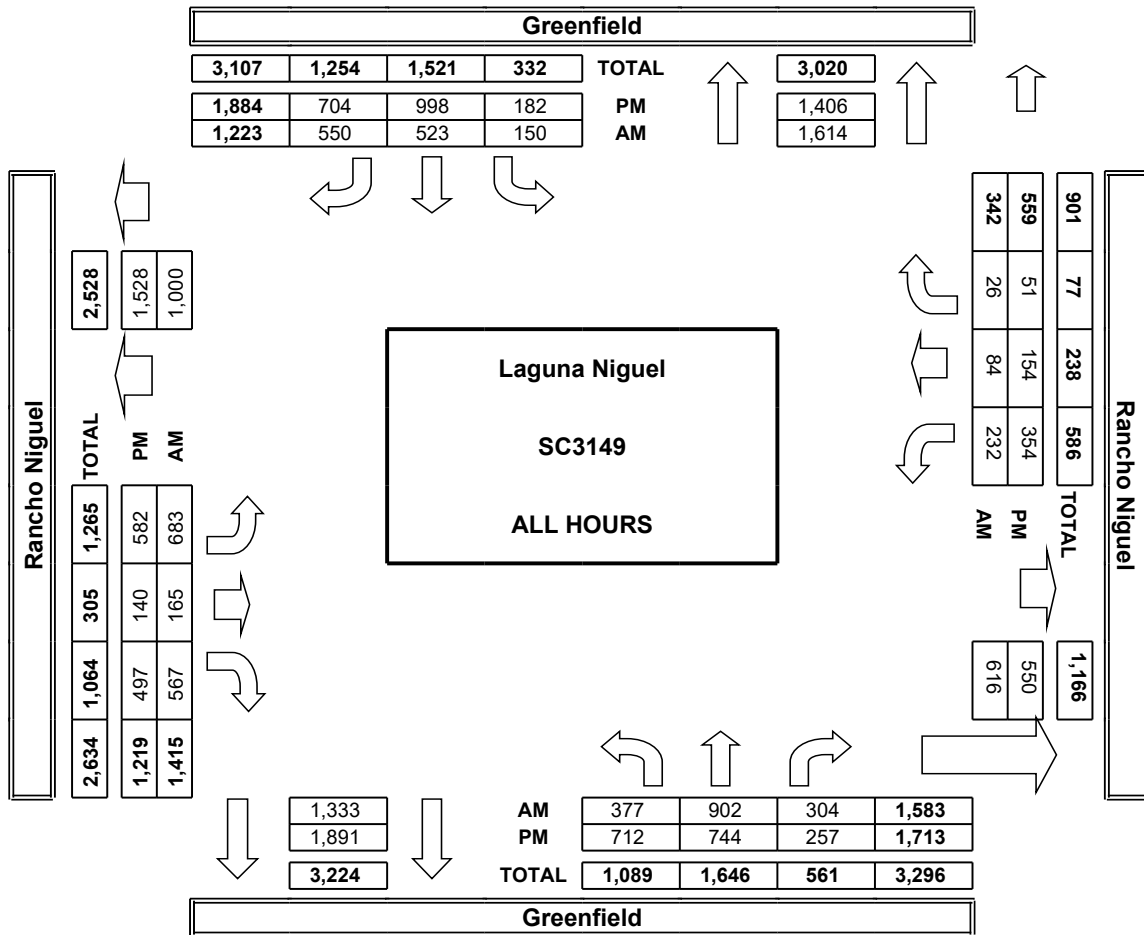
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
AM BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
1	0	0	0	1
1	0	0	0	1
2	0	0	0	2
2	0	1	0	3
1	1	2	0	4
9	1	3	0	13
7:30 AM				
0	0	0	1	1
1	0	1	0	2
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	2	0	1	4
0	0	0	0	0
2	3	1	2	8
5:00 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
1	0	0	0	1
1	0	0	0	1
2	0	0	0	2
2	0	1	0	3
1	1	2	0	4
9	1	3	0	13
5	0	0	0	5
0	0	0	1	1
1	0	1	0	2
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	1	3
0	0	0	0	0
2	2	1	2	7
1	1	0	1	3

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
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
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1

AimTD LLC
TURNING MOVEMENT COUNTS



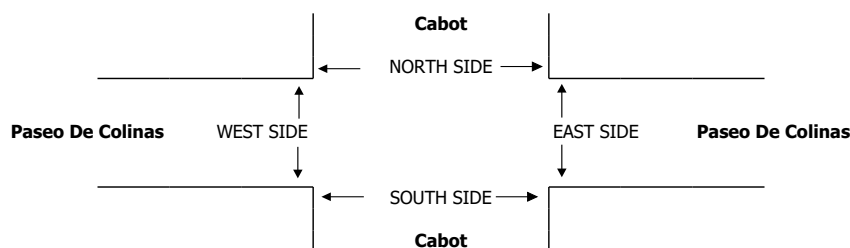
DATE: Tue, Nov 2, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Niguel Cabot Paseo De Colinas	PROJECT #: LOCATION #: CONTROL:	SC3149 7 SIGNAL	
NOTES:			AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Paseo De Colinas			Paseo De Colinas			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	2	X	2	1	2	X	X	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	0	0	13	0	43	95	127	0	0	48	8	334
	7:15 AM	0	0	0	13	0	74	100	161	0	0	73	15	436
	7:30 AM	0	0	0	35	0	76	126	176	0	0	81	21	515
	7:45 AM	0	0	0	40	0	77	138	170	0	0	88	41	554
	8:00 AM	0	0	0	31	0	86	121	137	0	0	97	45	517
	8:15 AM	0	0	0	18	0	81	123	135	0	0	104	42	503
	8:30 AM	0	0	0	18	0	70	96	125	0	0	85	30	424
	8:45 AM	0	0	0	31	0	61	87	131	0	0	59	21	390
	VOLUMES	0	0	0	199	0	568	886	1,162	0	0	635	223	3,677
	APPROACH %	0%	0%	0%	26%	0%	74%	43%	57%	0%	0%	74%	26%	
APP/DEPART	0	/	1,110	768	/	0	2,051	/	1,361	858	/	1,206	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	0	0	0	124	0	320	508	618	0	0	370	149	2,093	
APPROACH %	0%	0%	0%	28%	0%	72%	45%	55%	0%	0%	71%	29%		
PEAK HR FACTOR	0.000			0.943			0.913			0.889			0.941	
APP/DEPART	0	/	658	445	/	0	1,129	/	742	519	/	693	0	
PM	4:00 PM	0	0	0	19	0	97	78	111	0	0	123	29	457
	4:15 PM	0	0	0	31	0	102	75	136	0	0	110	37	491
	4:30 PM	0	0	0	29	0	94	74	119	0	0	94	33	443
	4:45 PM	0	0	0	38	0	98	76	105	0	0	105	37	459
	5:00 PM	0	0	0	22	0	120	65	121	0	0	151	32	511
	5:15 PM	0	0	0	28	0	122	85	102	0	0	131	94	562
	5:30 PM	0	0	0	26	0	140	73	97	0	0	139	48	523
	5:45 PM	0	0	0	21	0	107	70	104	0	0	127	40	469
	VOLUMES	0	0	0	214	0	880	596	895	0	0	980	350	3,923
	APPROACH %	0%	0%	0%	20%	0%	80%	40%	60%	0%	0%	74%	26%	
APP/DEPART	0	/	948	1,096	/	0	1,496	/	1,110	1,331	/	1,865	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	0	0	0	97	0	489	293	424	0	0	548	214	2,068	
APPROACH %	0%	0%	0%	17%	0%	83%	41%	59%	0%	0%	72%	28%		
PEAK HR FACTOR	0.000			0.884			0.961			0.847			0.920	
APP/DEPART	0	/	508	587	/	0	719	/	521	762	/	1,039	0	

0	0	1	0	1
0	1	0	1	2
0	0	1	0	1
0	0	1	0	1
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	2	5	1	8



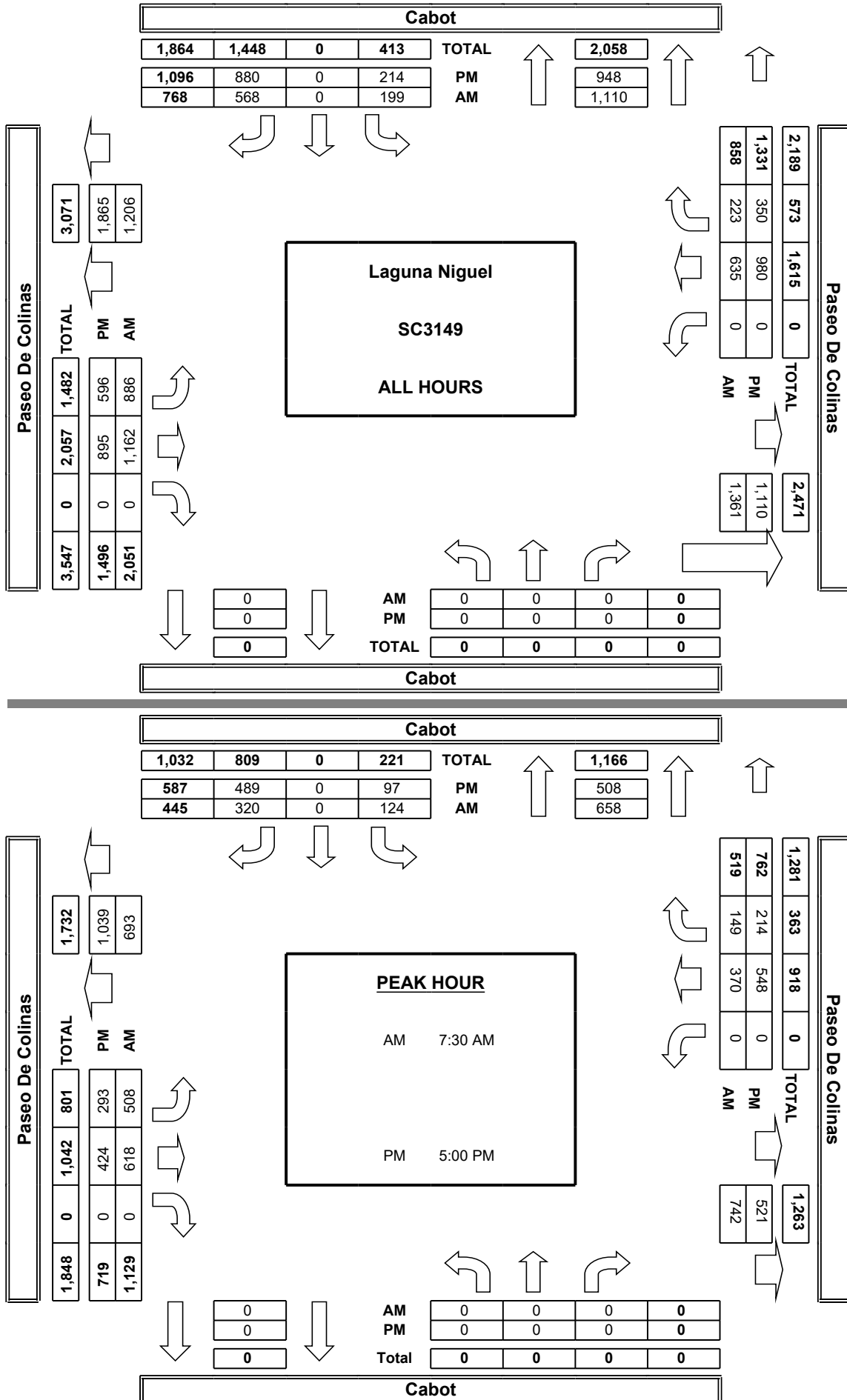
AM		7:00 AM
		7:15 AM
		7:30 AM
		7:45 AM
		8:00 AM
		8:15 AM
		8:30 AM
		8:45 AM
		TOTAL
		AM BEGIN PEAK HR
PM		4:00 PM
		4:15 PM
		4:30 PM
		4:45 PM
		5:00 PM
		5:15 PM
		5:30 PM
		5:45 PM
		TOTAL
		PM BEGIN PEAK HR

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	0	1
1	0	0	0	1
1	0	0	0	1
2	0	0	0	2
2	0	0	0	2
3	0	0	1	4
1	0	0	0	1
10	1	0	1	12
7:30 AM				
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
3	0	0	0	3
0	0	0	0	0
3	0	0	0	3
10	0	0	0	10
5:00 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
2	0	0	0	2
2	0	0	1	3
0	0	0	0	0
7	0	0	1	8
5	0	0	0	5
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
3	0	0	0	3
0	0	0	0	0
3	0	0	0	3
10	0	0	0	10
8	0	0	0	8

[illegible]

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

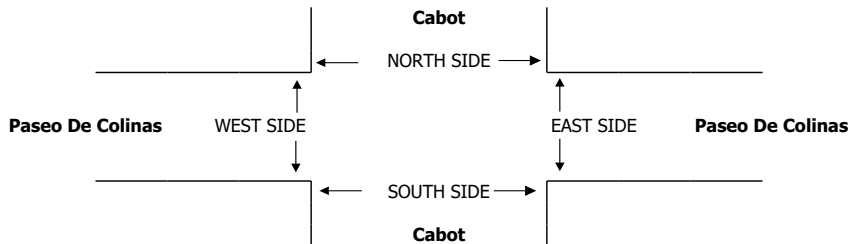
T218

DATE: Wed, Nov 3, 21	LOCATION: NORTH & SOUTH: EAST & WEST:	Laguna Niguel Cabot Paseo De Colinas	PROJECT #: LOCATION #: CONTROL:	SC3149 7 SIGNAL
NOTES:			AM PM MD OTHER OTHER ▲ ◀ W ▶ E ▼ N S	☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Paseo De Colinas			Paseo De Colinas			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	2	X	2	1	2	X	X	2	0	
7:00 AM	0	0	0	10	0	35	91	118	0	0	47	11	312
7:15 AM	0	0	0	12	0	59	119	156	0	0	74	18	438
7:30 AM	0	0	0	31	0	75	106	157	0	0	100	23	492
7:45 AM	0	0	0	31	0	77	140	169	0	0	72	29	518
8:00 AM	0	0	0	39	0	82	126	148	0	0	75	17	487
8:15 AM	0	0	0	33	0	71	90	149	0	0	102	31	476
8:30 AM	0	0	0	23	0	57	123	122	0	0	93	45	463
8:45 AM	0	0	0	23	0	58	120	121	0	0	74	18	414
VOLUMES	0	0	0	202	0	514	915	1,140	0	0	637	192	3,600
APPROACH %	0%	0%	0%	28%	0%	72%	45%	55%	0%	0%	77%	23%	
APP/DEPART	0	/	1,102	716	/	0	2,055	/	1,342	829	/	1,156	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	0	0	0	134	0	305	462	623	0	0	349	100	1,973
APPROACH %	0%	0%	0%	31%	0%	69%	43%	57%	0%	0%	78%	22%	
PEAK HR FACTOR	0.000			0.907			0.878			0.844			0.952
APP/DEPART	0	/	558	439	/	0	1,085	/	757	449	/	658	0
4:00 PM	0	0	0	32	0	95	87	114	0	0	129	39	496
4:15 PM	0	0	0	27	0	108	93	139	0	0	117	36	520
4:30 PM	0	0	0	48	0	107	80	115	0	0	121	44	515
4:45 PM	0	0	0	29	0	110	81	113	0	0	96	35	464
5:00 PM	0	0	0	30	0	120	68	101	0	0	133	38	490
5:15 PM	0	0	0	32	0	129	90	124	0	0	164	94	633
5:30 PM	0	0	0	21	0	115	77	100	0	0	119	47	479
5:45 PM	0	0	0	24	0	119	67	99	0	0	154	32	495
VOLUMES	0	0	0	243	0	903	643	905	0	0	1,033	365	4,092
APPROACH %	0%	0%	0%	21%	0%	79%	42%	58%	0%	0%	74%	26%	
APP/DEPART	0	/	1,005	1,146	/	0	1,548	/	1,147	1,398	/	1,940	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	0	0	0	139	0	466	319	453	0	0	514	211	2,102
APPROACH %	0%	0%	0%	23%	0%	77%	41%	59%	0%	0%	71%	29%	
PEAK HR FACTOR	0.000			0.939			0.902			0.703			0.830
APP/DEPART	0	/	527	605	/	0	772	/	592	725	/	983	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	2	0	2
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	5	0	5

0	1	0	0	1
0	0	1	0	1
0	0	1	0	1
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	4	0	5



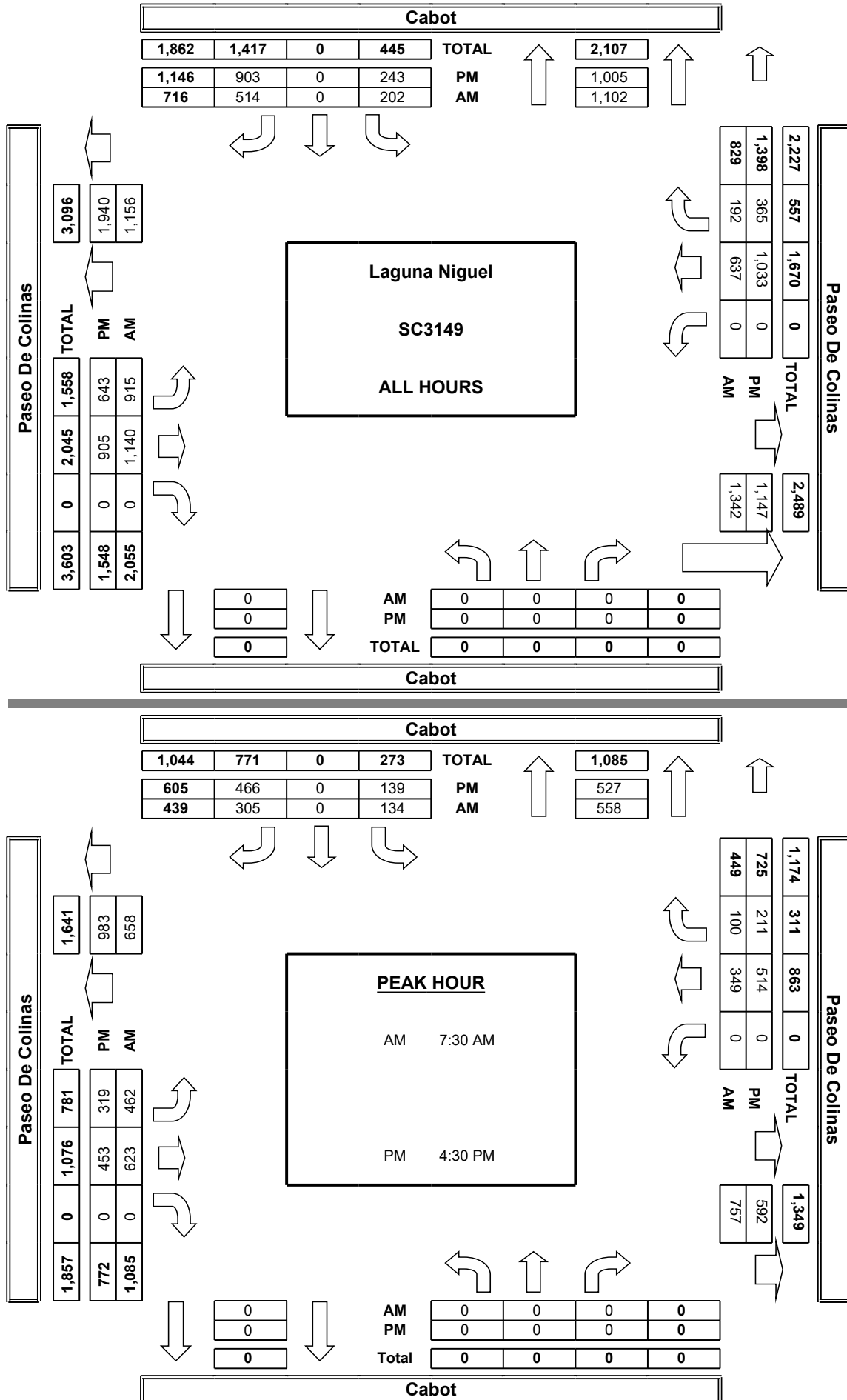
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
AM BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	0	1
2	0	0	0	2
1	0	0	1	2
1	1	1	0	3
2	0	0	0	2
0	0	0	0	0
0	0	0	1	1
6	2	1	2	11
7:30 AM				
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	1	1
4	0	0	1	5
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	1	1
3	0	0	2	5
3	0	0	1	4
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
2	0	0	0	2
0	0	0	1	1
2	0	0	1	3
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	1	0	0	1
2	0	0	0	2
0	0	0	0	0
1	1	1	0	3
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
2	0	0	0	2

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Cabot
Rapid Falls

PROJECT #: SC3149
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

◀ W

▲ N

▼ S

E ▶

☒ Add U-Turns to Left Turns

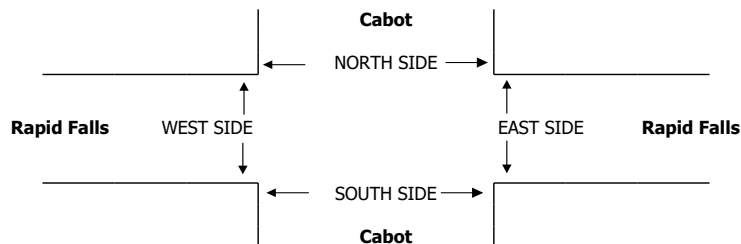
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Rapid Falls			Rapid Falls			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	1	84	0	0	68	8	9	0	1	0	0	0	171
	7:15 AM	3	99	0	0	92	9	21	0	4	0	0	0	228
	7:30 AM	1	131	0	0	133	7	12	0	3	0	0	0	287
	7:45 AM	4	200	0	0	164	14	15	0	5	0	0	0	402
	8:00 AM	5	186	0	0	154	14	23	0	6	0	0	0	388
	8:15 AM	4	135	0	0	140	9	23	0	7	0	0	0	318
	8:30 AM	6	136	0	0	128	19	15	0	4	0	0	0	308
	8:45 AM	6	111	0	0	156	11	7	0	2	0	0	0	293
	VOLUMES	30	1,082	0	0	1,035	91	125	0	32	0	0	0	2,395
	APPROACH %	3%	97%	0%	0%	92%	8%	80%	0%	20%	0%	0%	0%	
PM	APP/DEPART	1,112	/	1,207	1,126	/	1,067	157	/	0	0	/	121	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	19	657	0	0	586	56	76	0	22	0	0	0	1,416
	APPROACH %	3%	97%	0%	0%	91%	9%	78%	0%	22%	0%	0%	0%	
	PEAK HR FACTOR	0.828				0.902		0.817			0.000			0.881
	APP/DEPART	676	/	733	642	/	608	98	/	0	0	/	75	0
	4:00 PM	7	178	0	0	159	14	17	0	8	0	0	0	383
	4:15 PM	9	173	0	0	177	15	11	0	6	0	0	0	391
	4:30 PM	5	149	0	0	147	14	17	0	8	0	0	0	340
	4:45 PM	7	155	0	0	151	14	14	0	4	0	0	0	345
PM	5:00 PM	5	169	0	0	174	12	16	0	7	0	0	0	383
	5:15 PM	5	138	0	0	191	11	5	0	3	0	0	0	353
	5:30 PM	5	152	0	0	198	11	20	0	5	0	0	0	391
	5:45 PM	4	157	0	0	146	16	5	0	2	0	0	0	330
	VOLUMES	47	1,271	0	0	1,343	107	105	0	43	0	0	0	2,916
	APPROACH %	4%	96%	0%	0%	93%	7%	71%	0%	29%	0%	0%	0%	
	APP/DEPART	1,318	/	1,376	1,450	/	1,386	148	/	0	0	/	154	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	22	614	0	0	714	48	55	0	19	0	0	0	1,472
	APPROACH %	3%	97%	0%	0%	94%	6%	74%	0%	26%	0%	0%	0%	
	PEAK HR FACTOR	0.914				0.911		0.740			0.000			0.941
	APP/DEPART	636	/	669	762	/	733	74	/	0	0	/	70	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	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	0



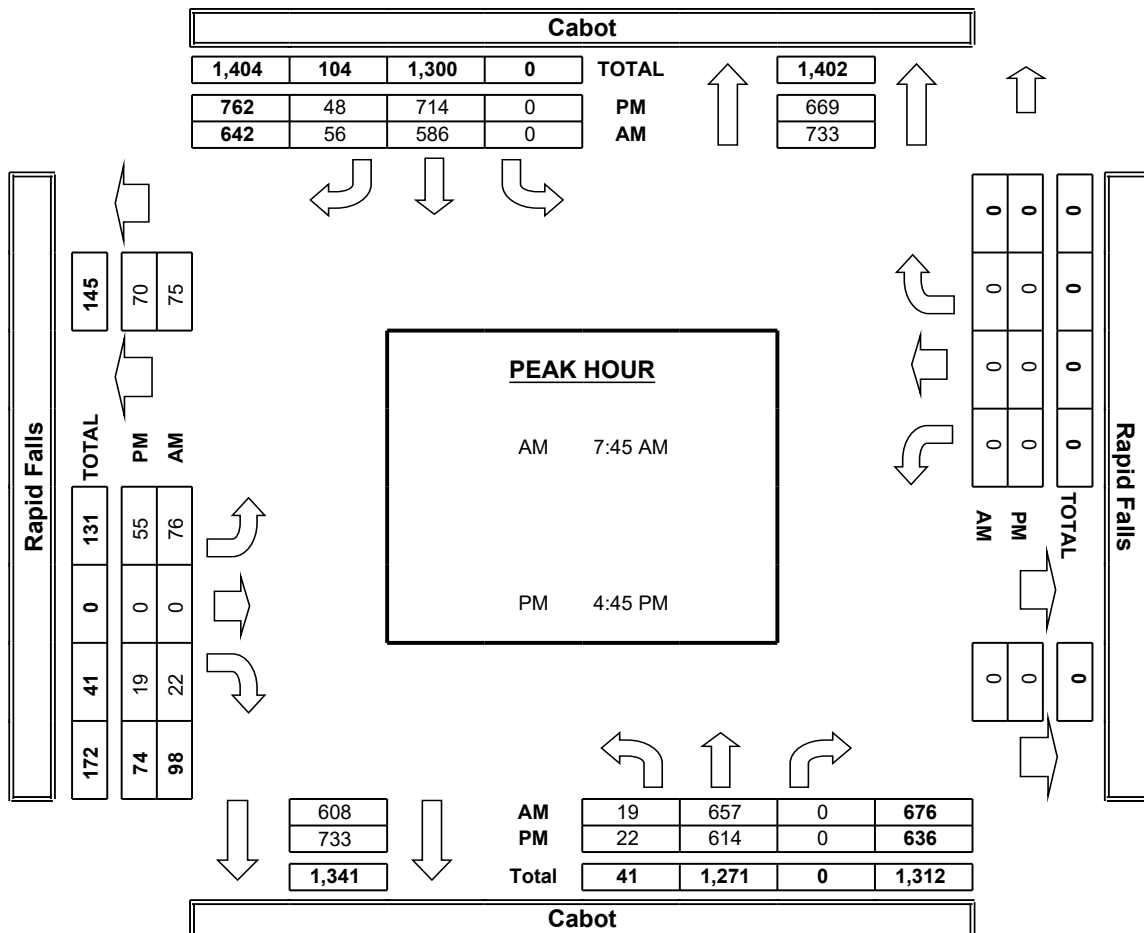
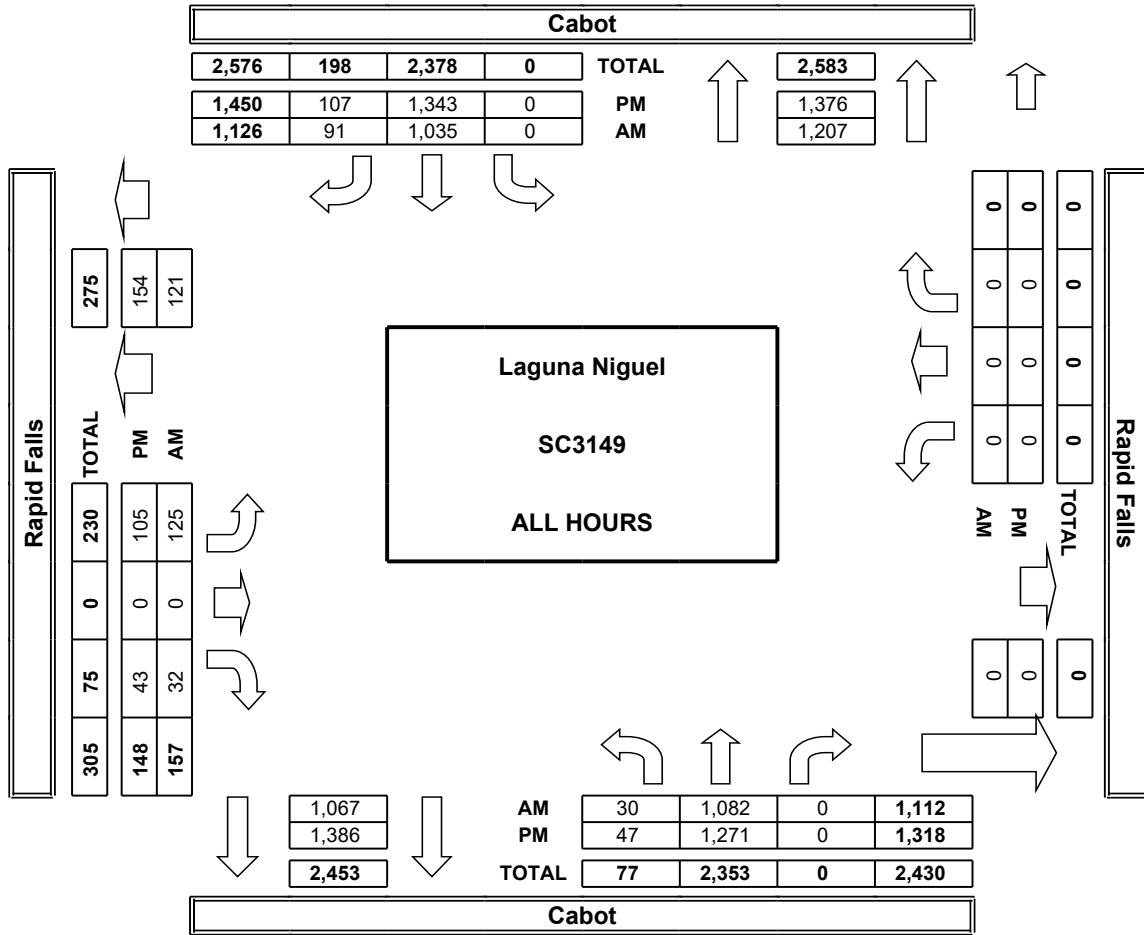
AM	7:00 AM	
	7:15 AM	
	7:30 AM	
	7:45 AM	
	8:00 AM	
	8:15 AM	
	8:30 AM	
	8:45 AM	
	TOTAL	
	AM BEGIN PEAK HR	
PM	4:00 PM	
	4:15 PM	
	4:30 PM	
	4:45 PM	
	5:00 PM	
	5:15 PM	
	5:30 PM	
	5:45 PM	
	TOTAL	
	PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	1	2
0	2	0	0	2
0	1	1	1	3
0	0	0	0	0
0	1	1	4	6
0	5	0	5	10
0	1	0	3	4
0	11	2	14	27
7:45 AM				
0	2	0	1	3
0	0	0	2	2
0	0	0	0	0
0	1	0	0	1
0	1	0	2	3
0	0	1	2	3
0	1	0	0	1
0	0	0	0	0
0	5	1	7	13
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	1	2
0	2	0	0	2
0	1	0	1	2
0	0	0	0	0
0	1	0	4	5
0	5	0	4	9
0	1	0	3	4
0	11	0	13	24
7:45 AM				
0	2	0	1	3
0	0	0	2	2
0	0	0	0	0
0	1	0	0	1
0	1	0	2	3
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	4	0	6	10
4:45 PM				
0	2	0	3	5

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
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
0	0	0	0	0
0	0	1	0	1
0	0	0	1	1
0	0	0	0	0
0	0	2	1	3
7:45 AM				
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	1	0	0	1
0	0	0	0	0
0	1	1	1	3

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

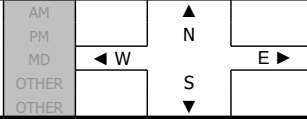
DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Cabot
Rapid Falls

PROJECT #: SC3149
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

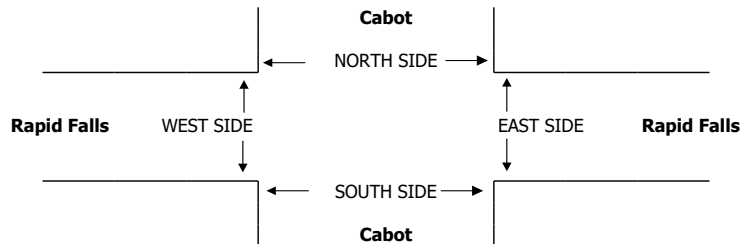


☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Cabot	Cabot	Cabot	Cabot	Cabot	Cabot	Rapid Falls	Rapid Falls	Rapid Falls	Rapid Falls	Rapid Falls	Rapid Falls	
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	X	X	2		1	X	1	X	X	X	
7:00 AM	2	70	0	0	54	3	10	0	2	0	0	0	141
7:15 AM	3	114	0	0	84	10	12	0	2	0	0	0	225
7:30 AM	2	149	0	0	123	8	19	0	3	0	0	0	304
7:45 AM	8	192	0	0	175	12	15	0	6	0	0	0	408
8:00 AM	7	171	0	0	161	26	27	0	6	0	0	0	398
8:15 AM	2	156	0	0	127	15	28	0	7	0	0	0	335
8:30 AM	2	139	0	0	121	15	7	0	2	0	0	0	286
8:45 AM	3	134	0	0	117	10	13	0	4	0	0	0	281
VOLUMES	29	1,125	0	0	962	99	131	0	32	0	0	0	2,378
APPROACH %	3%	97%	0%	0%	91%	9%	80%	0%	20%	0%	0%	0%	
APP/DEPART	1,154	/	1,256	1,061	/	994	163	/	0	0	/	128	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	19	668	0	0	586	61	89	0	22	0	0	0	1,445
APPROACH %	3%	97%	0%	0%	91%	9%	80%	0%	20%	0%	0%	0%	
PEAK HR FACTOR	0.859			0.865			0.793			0.000			0.885
APP/DEPART	687	/	757	647	/	608	111	/	0	0	/	80	0
4:00 PM	2	141	0	0	113	12	16	0	3	0	0	0	287
4:15 PM	3	165	0	0	155	17	19	0	7	0	0	0	366
4:30 PM	5	165	0	0	166	17	21	0	8	0	0	0	382
4:45 PM	5	160	0	0	160	15	14	0	7	0	0	0	361
5:00 PM	8	166	0	0	173	16	15	0	6	0	0	0	384
5:15 PM	10	168	0	0	182	20	14	0	6	0	0	0	400
5:30 PM	5	163	0	0	173	20	9	0	2	0	0	0	372
5:45 PM	8	119	0	0	153	18	10	0	6	0	0	0	314
VOLUMES	46	1,247	0	0	1,275	135	118	0	45	0	0	0	2,866
APPROACH %	4%	96%	0%	0%	90%	10%	72%	0%	28%	0%	0%	0%	
APP/DEPART	1,293	/	1,364	1,410	/	1,320	163	/	0	0	/	182	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	28	659	0	0	681	68	64	0	27	0	0	0	1,527
APPROACH %	4%	96%	0%	0%	91%	9%	70%	0%	30%	0%	0%	0%	
PEAK HR FACTOR	0.965			0.927			0.784			0.000			0.954
APP/DEPART	687	/	722	749	/	708	91	/	0	0	/	97	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	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	1	0	1
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	1	0	1



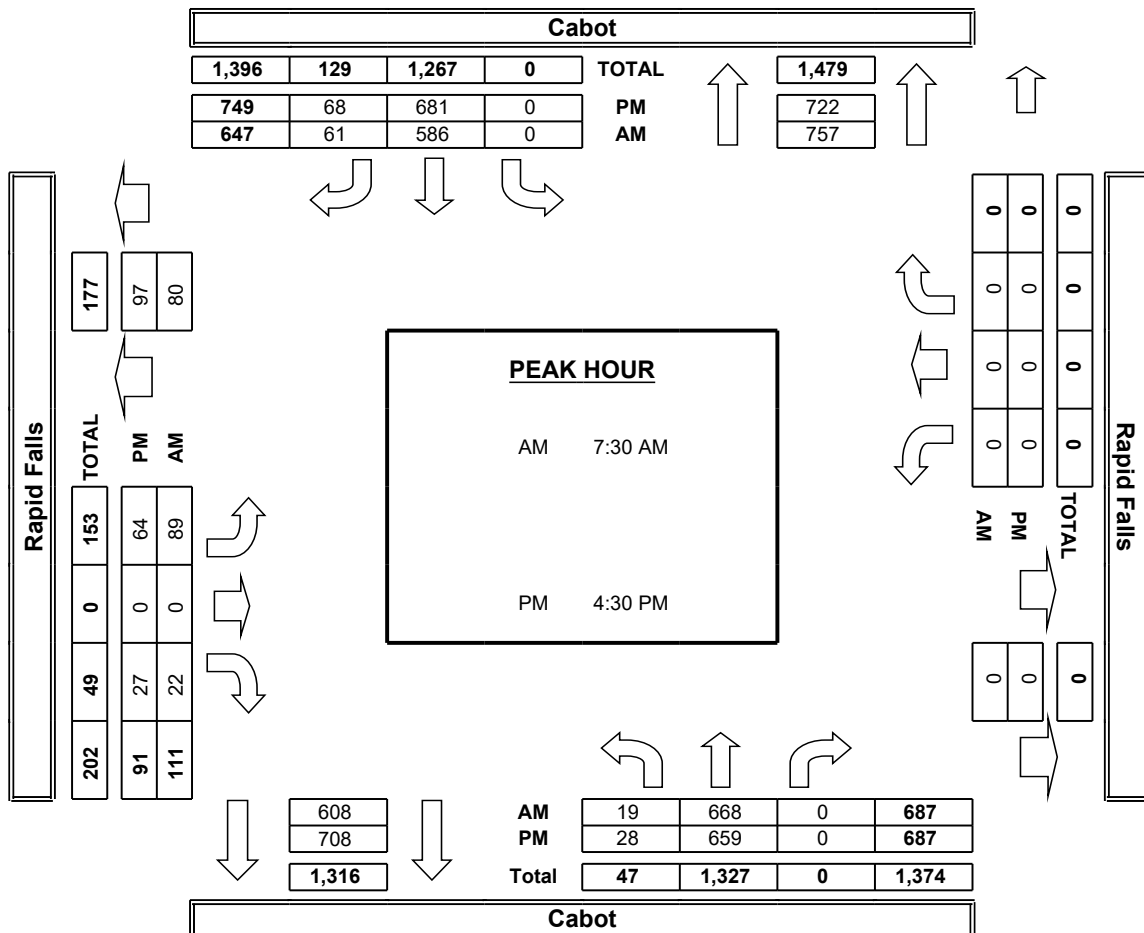
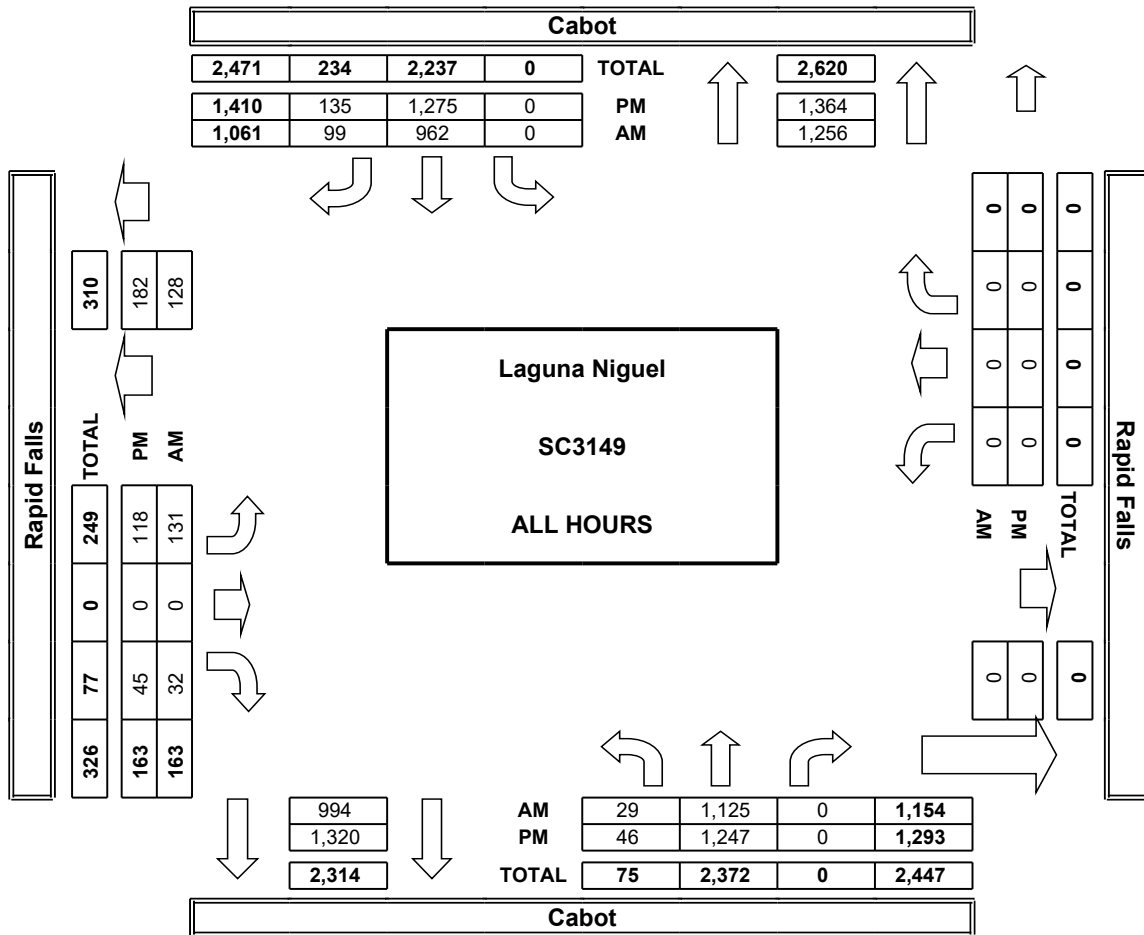
	AM	PM
7:00 AM		
7:15 AM		
7:30 AM		
7:45 AM		
8:00 AM		
8:15 AM		
8:30 AM		
8:45 AM		
TOTAL		
AM BEGIN PEAK HR		
4:00 PM		
4:15 PM		
4:30 PM		
4:45 PM		
5:00 PM		
5:15 PM		
5:30 PM		
5:45 PM		
TOTAL		
PM BEGIN PEAK HR		

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	2	0	2	4
0	2	0	2	4
0	1	0	3	4
0	0	0	4	4
0	0	0	0	0
0	1	0	1	2
0	0	0	0	0
0	6	0	12	18
7:30 AM				
0	0	1	0	1
0	2	0	1	3
0	3	0	2	5
0	3	0	2	5
0	1	0	1	2
0	2	0	1	3
0	0	0	0	0
0	1	0	1	2
0	12	1	8	21
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	3	4
0	0	0	3	3
0	0	0	0	0
0	1	0	1	2
0	0	0	0	0
0	2	0	7	9
0	1	0	6	7
0	0	0	0	0
0	2	0	1	3
0	3	0	2	5
0	3	0	2	5
0	1	0	1	2
0	1	0	1	2
0	0	0	0	0
0	1	0	1	2
0	11	0	8	19
0	8	0	6	14

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	2	0	2	4
0	2	0	2	4
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	4	0	5	9
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Laguna Niguel
Cabot
Costco

PROJECT #:
LOCATION #:
CONTROL:

SC3149
9
SIGNAL

NOTES:

Queue NB PM

AM
PM
MD
OTHER
OTHER

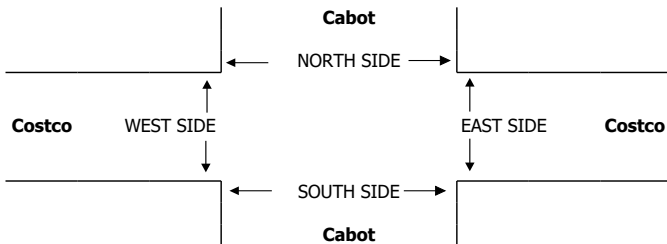
▲
N
◀ W
S
▶ E
▼

☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Costco			Costco			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	2	1	2	2	X	X	X	X	1	X	1	
7:00 AM	0	103	4	5	55	0	0	0	0	0	0	11	178
7:15 AM	0	118	14	10	107	0	0	0	0	7	0	13	269
7:30 AM	0	151	19	11	100	0	0	0	0	4	0	24	309
7:45 AM	0	166	11	8	137	0	0	0	0	6	0	23	351
8:00 AM	0	158	20	21	116	0	0	0	0	8	0	27	350
8:15 AM	0	138	23	13	108	0	0	0	0	10	0	30	322
8:30 AM	0	138	13	17	108	0	0	0	0	6	0	30	312
8:45 AM	0	105	19	26	107	0	0	0	0	9	0	21	287
VOLUMES	0	1,077	123	111	838	0	0	0	0	50	0	179	2,378
APPROACH %	0%	90%	10%	12%	88%	0%	0%	0%	0%	22%	0%	78%	
APP/DEPART	1,200	/	1,256	949	/	888	0	/	234	229	/	0	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	600	67	59	469	0	0	0	0	30	0	110	1,335
APPROACH %	0%	90%	10%	11%	89%	0%	0%	0%	0%	21%	0%	79%	
PEAK HR FACTOR	0.937			0.910			0.000			0.875			0.951
APP/DEPART	667	/	710	528	/	499	0	/	126	140	/	0	0
4:00 PM	0	106	20	69	106	0	0	0	0	19	0	71	391
4:15 PM	0	110	18	85	122	0	0	0	0	26	0	69	430
4:30 PM	0	117	20	61	121	0	0	0	0	23	0	65	407
4:45 PM	0	105	19	61	125	0	0	0	0	21	0	77	408
5:00 PM	0	115	18	60	136	0	0	0	0	19	0	63	411
5:15 PM	0	178	35	68	151	0	0	0	0	27	0	71	530
5:30 PM	0	122	24	60	137	0	0	0	0	20	0	69	432
5:45 PM	0	111	19	56	132	0	0	0	0	16	0	72	406
VOLUMES	0	964	173	520	1,030	0	0	0	0	171	0	557	3,415
APPROACH %	0%	85%	15%	34%	66%	0%	0%	0%	0%	23%	0%	77%	
APP/DEPART	1,137	/	1,522	1,550	/	1,201	0	/	692	728	/	0	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	0	520	96	249	549	0	0	0	0	87	0	280	1,781
APPROACH %	0%	84%	16%	31%	69%	0%	0%	0%	0%	24%	0%	76%	
PEAK HR FACTOR	0.723			0.911			0.000			0.936			0.840
APP/DEPART	616	/	800	798	/	636	0	/	345	367	/	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	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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1



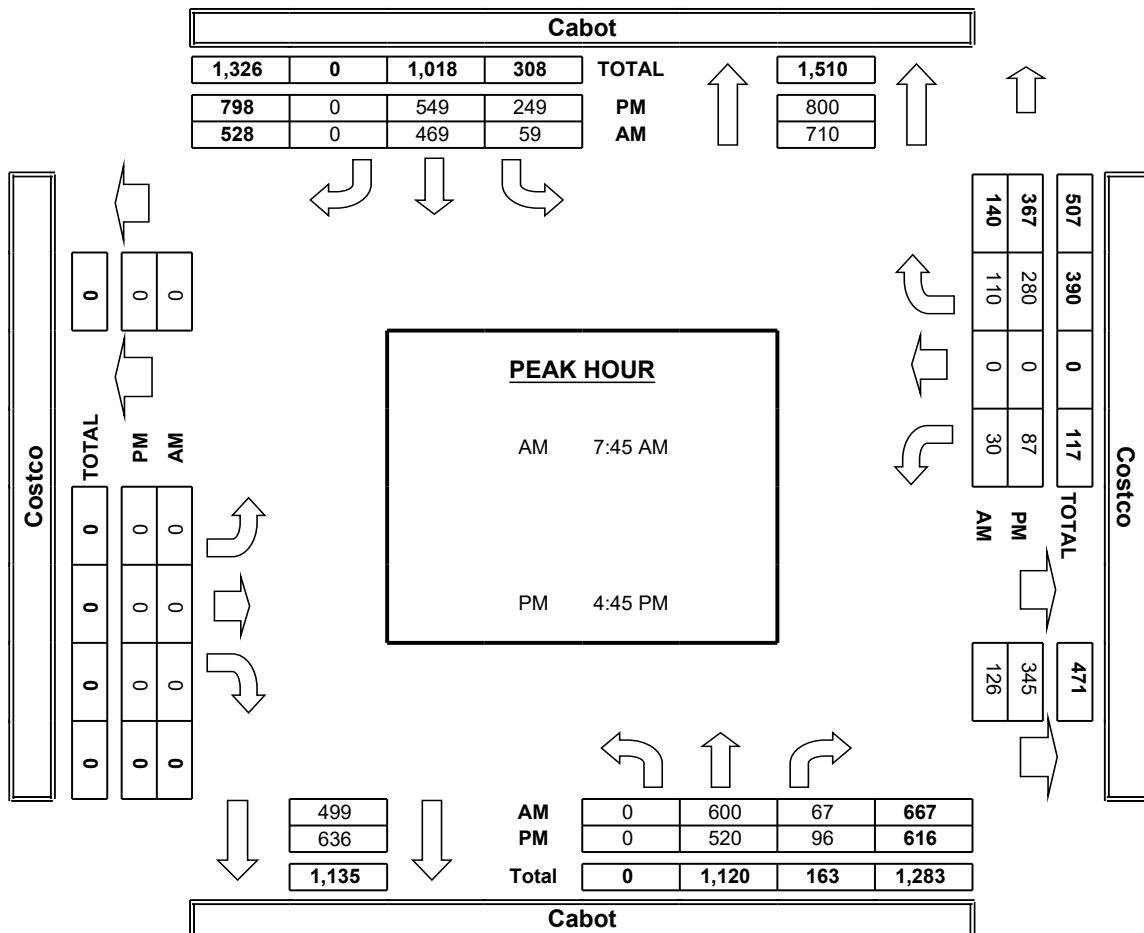
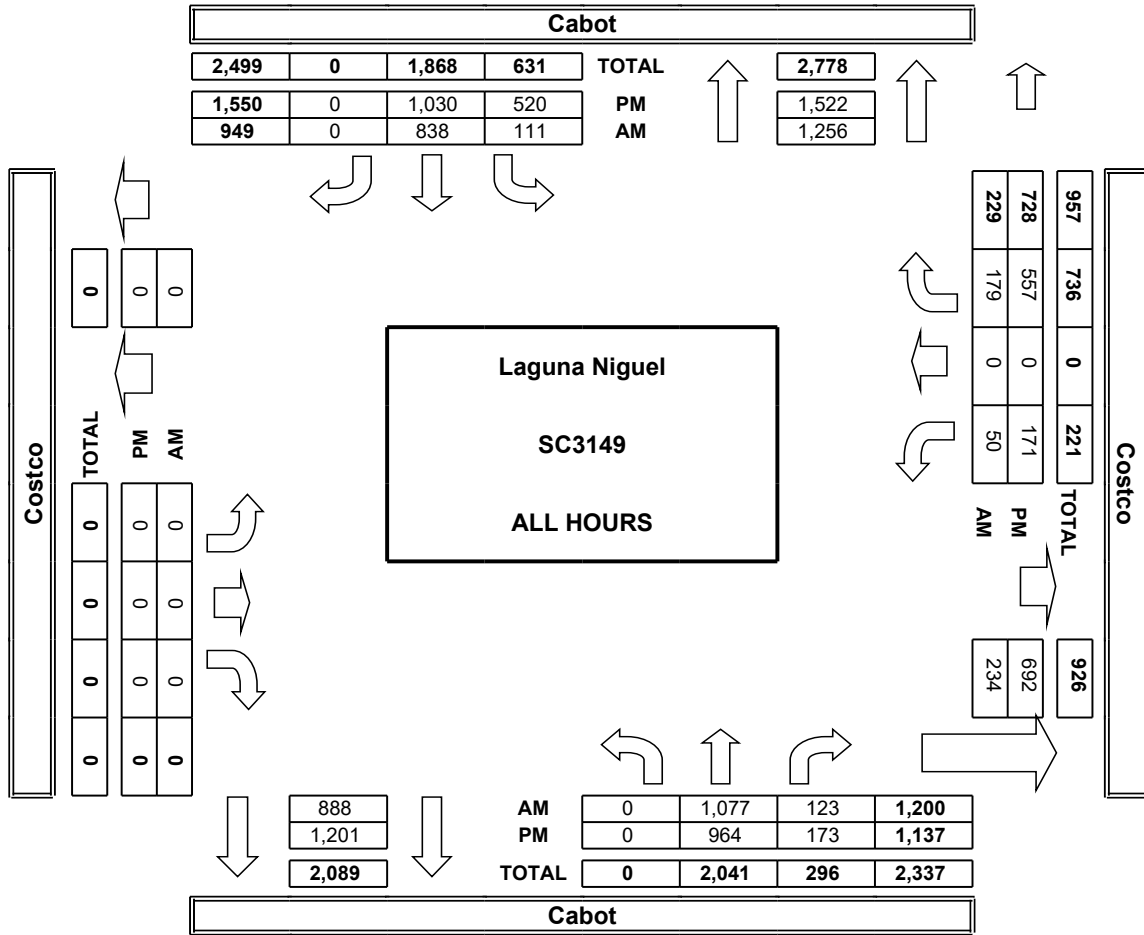
AM	7:00 AM	
	7:15 AM	
	7:30 AM	
	7:45 AM	
	8:00 AM	
	8:15 AM	
	8:30 AM	
	8:45 AM	
TOTAL		
AM BEGIN PEAK HR		
PM	4:00 PM	
	4:15 PM	
	4:30 PM	
	4:45 PM	
	5:00 PM	
	5:15 PM	
	5:30 PM	
	5:45 PM	
TOTAL		
PM BEGIN PEAK HR		

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	4	0	4
7:45 AM				
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	2	1	3
4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	4	0	4
0	0	1	0	1
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
0	0	1	0	1

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
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
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
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH: Cabot
EAST & WEST: Costco

PROJECT #: SC3149
LOCATION #: 9
CONTROL: SIGNAL

NOTES:					AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E ▼	
Queue NB PM							

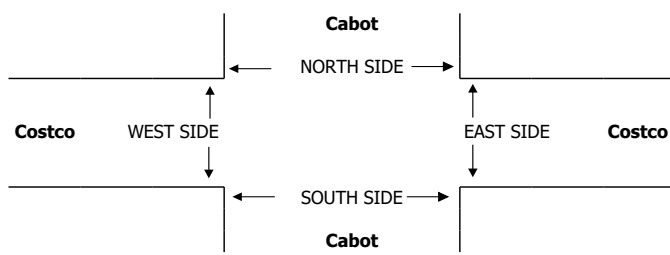
☐ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Cabot			Cabot			Costco			Costco			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	2	1	2	2	X	X	X	X	1	X	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	99	12	10	55	0	0	0	0	3	0	13	192
	7:15 AM	0	136	5	8	80	0	0	0	0	4	0	16	249
	7:30 AM	0	138	9	11	100	0	0	0	0	5	0	13	276
	7:45 AM	0	153	17	15	146	0	0	0	0	2	0	29	362
	8:00 AM	0	139	15	12	137	0	0	0	0	3	0	20	326
	8:15 AM	0	132	7	20	114	0	0	0	0	5	0	22	300
	8:30 AM	0	160	20	17	98	0	0	0	0	5	0	17	317
	8:45 AM	0	133	12	16	94	0	0	0	0	5	0	20	280
	VOLUMES	0	1,090	97	109	824	0	0	0	0	32	0	150	2,303
	APPROACH %	0%	92%	8%	12%	88%	0%	0%	0%	18%	0%	82%		
PM	APP/DEPART	1,187	/	1,241	934	/	856	0	/	206	182	/	0	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	0	584	59	64	495	0	0	0	0	15	0	88	1,305
	APPROACH %	0%	91%	9%	11%	89%	0%	0%	0%	15%	0%	85%		
	PEAK HR FACTOR		0.893			0.868		0.000			0.831			0.901
	APP/DEPART	643	/	672	559	/	510	0	/	123	103	/	0	0
	4:00 PM	0	107	11	70	129	0	0	0	0	10	0	76	403
	4:15 PM	0	119	20	61	130	0	0	0	0	16	0	72	418
	4:30 PM	0	137	31	66	142	0	0	0	0	18	0	65	459
	4:45 PM	0	101	24	59	143	0	0	0	0	16	0	61	404
	5:00 PM	0	116	18	61	123	0	0	0	0	18	0	63	399
	5:15 PM	0	155	31	63	157	0	0	0	0	25	0	68	499
	5:30 PM	0	145	19	69	126	0	0	0	0	21	0	65	445
	5:45 PM	0	108	22	61	134	0	0	0	0	21	0	63	409
	VOLUMES	0	988	176	510	1,084	0	0	0	0	145	0	533	3,438
	APPROACH %	0%	85%	15%	32%	68%	0%	0%	0%	21%	0%	79%		
	APP/DEPART	1,165	/	1,522	1,595	/	1,230	0	/	686	678	/	0	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	509	104	249	565	0	0	0	0	77	0	257	1,762
	APPROACH %	0%	83%	17%	31%	69%	0%	0%	0%	23%	0%	77%		
	PEAK HR FACTOR		0.825			0.925		0.000			0.898			0.883
	APP/DEPART	614	/	766	814	/	643	0	/	353	334	/	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
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
1	1	0	0	2



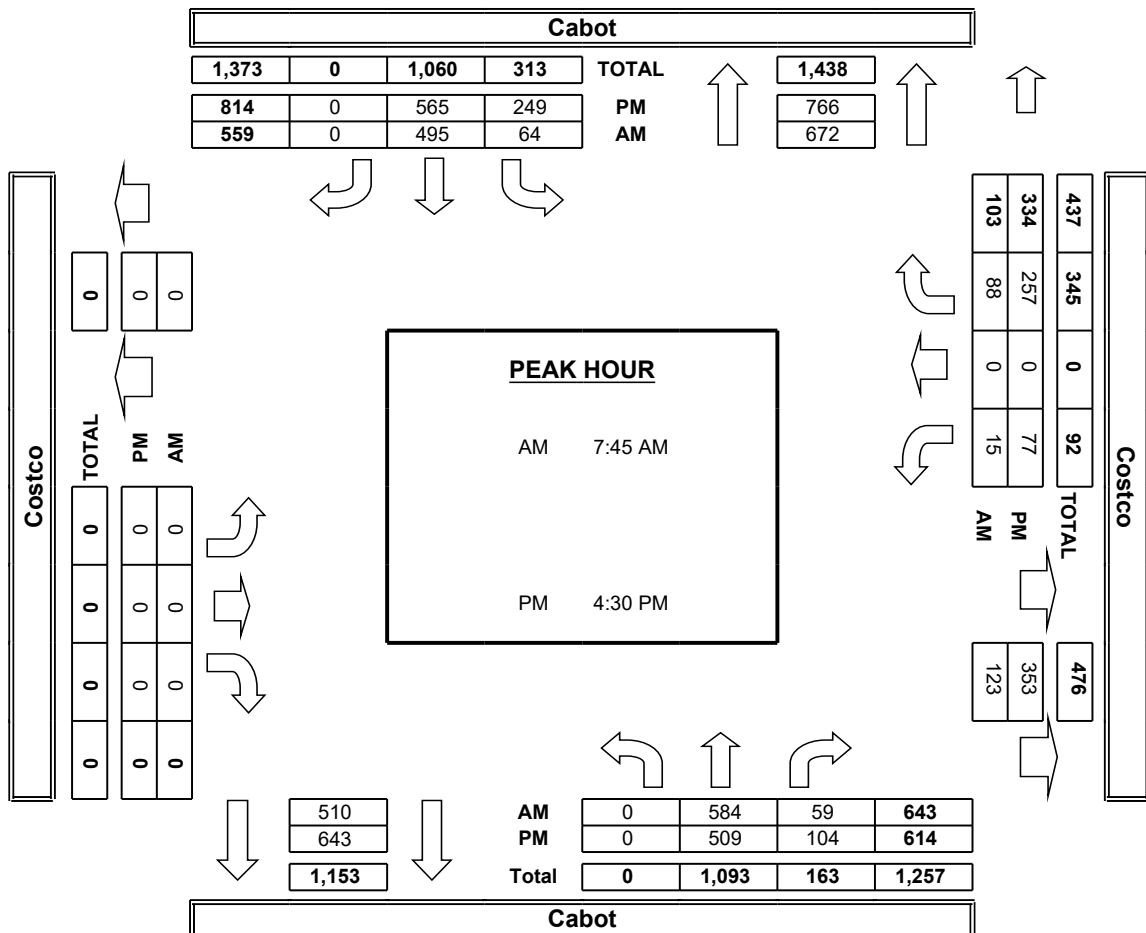
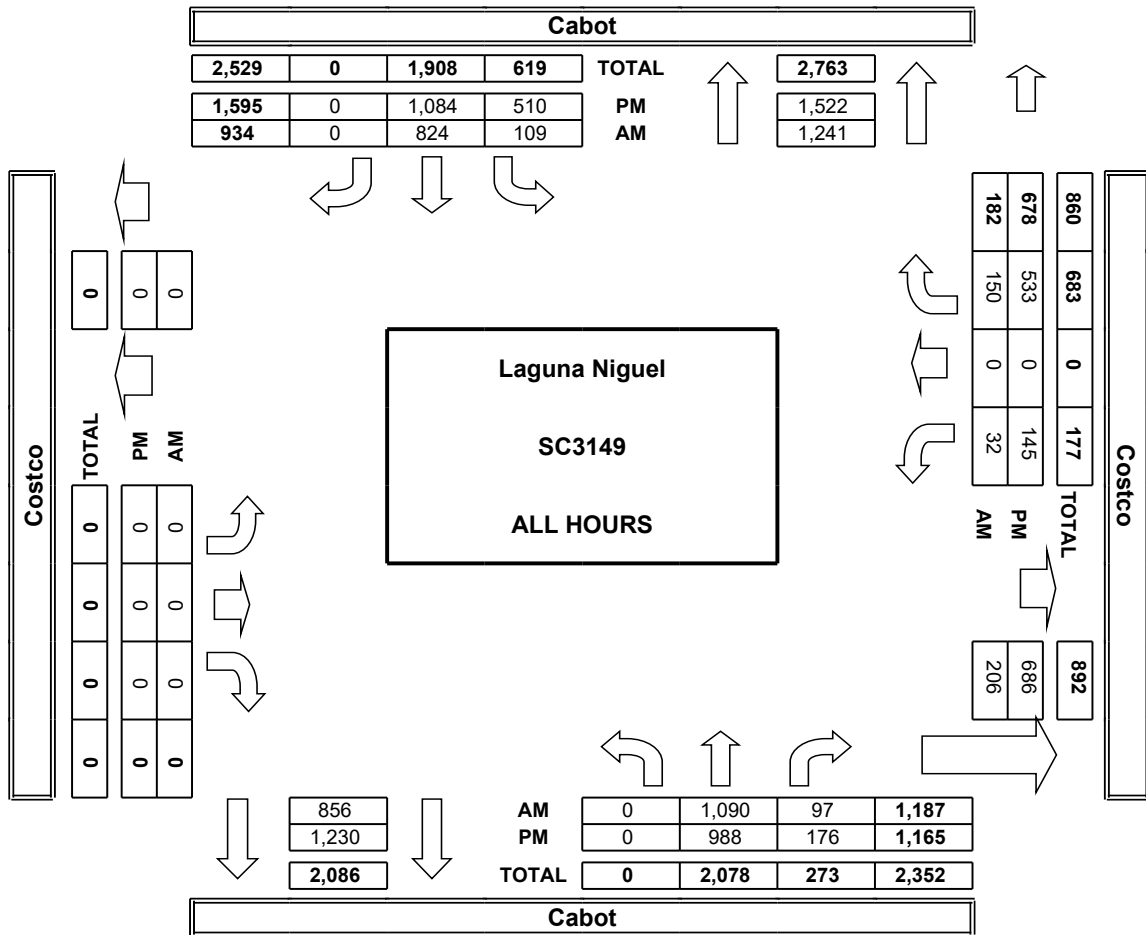
AM	7:00 AM	0	99	12	10	55	0	0	0	0	3	0	13	192
	7:15 AM	0	136	5	8	80	0	0	0	0	4	0	16	249
	7:30 AM	0	138	9	11	100	0	0	0	0	5	0	13	276
	7:45 AM	0	153	17	15	146	0	0	0	0	2	0	29	362
	8:00 AM	0	139	15	12	137	0	0	0	0	3	0	20	326
	8:15 AM	0	132	7	20	114	0	0	0	0	5	0	22	300
	8:30 AM	0	160	20	17	98	0	0	0	0	5	0	17	317
	8:45 AM	0	133	12	16	94	0	0	0	0	5	0	20	280
	TOTAL	0	1,090	97	109	824	0	0	0	0	32	0	150	2,303
	AM BEGIN PEAK HR													
PM	4:00 PM	0	107	11	70	129	0	0	0	0	10	0	76	403
	4:15 PM	0	119	20	61	130	0	0	0	0	16	0	72	418
	4:30 PM	0	137	31	66	142	0	0	0	0	18	0	65	459
	4:45 PM	0	101	24	59	143	0	0	0	0	16	0	61	404
	5:00 PM	0	116	18	61	123	0	0	0	0	18	0	63	399
	5:15 PM	0	155	31	63	157	0	0	0	0	25	0	68	499
	5:30 PM	0	145	19	69	126	0	0	0	0	21	0	65	445
	5:45 PM	0	108	22	61	134	0	0	0	0	21	0	63	409
	TOTAL	0	988	176	510	1,084	0	0	0	0	145	0	533	3,438
	PM BEGIN PEAK HR													

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	0	1	0	2
7:45 AM				
0	0	3	0	3
0	0	1	0	1
4	0	2	1	7
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
4	0	7	1	12
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
0	0	3	0	3
0	0	1	0	1
0	0	2	0	2
0	0	1	0	1
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	7	0	7
0	0	3	0	3

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
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
0	0	0	0	0
0	0	0	0	0
4	0	0	1	5

AimTD LLC
TURNING MOVEMENT COUNTS

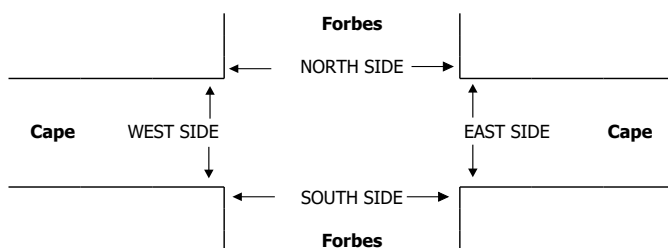


☐ Add U-Turns to Left Turns

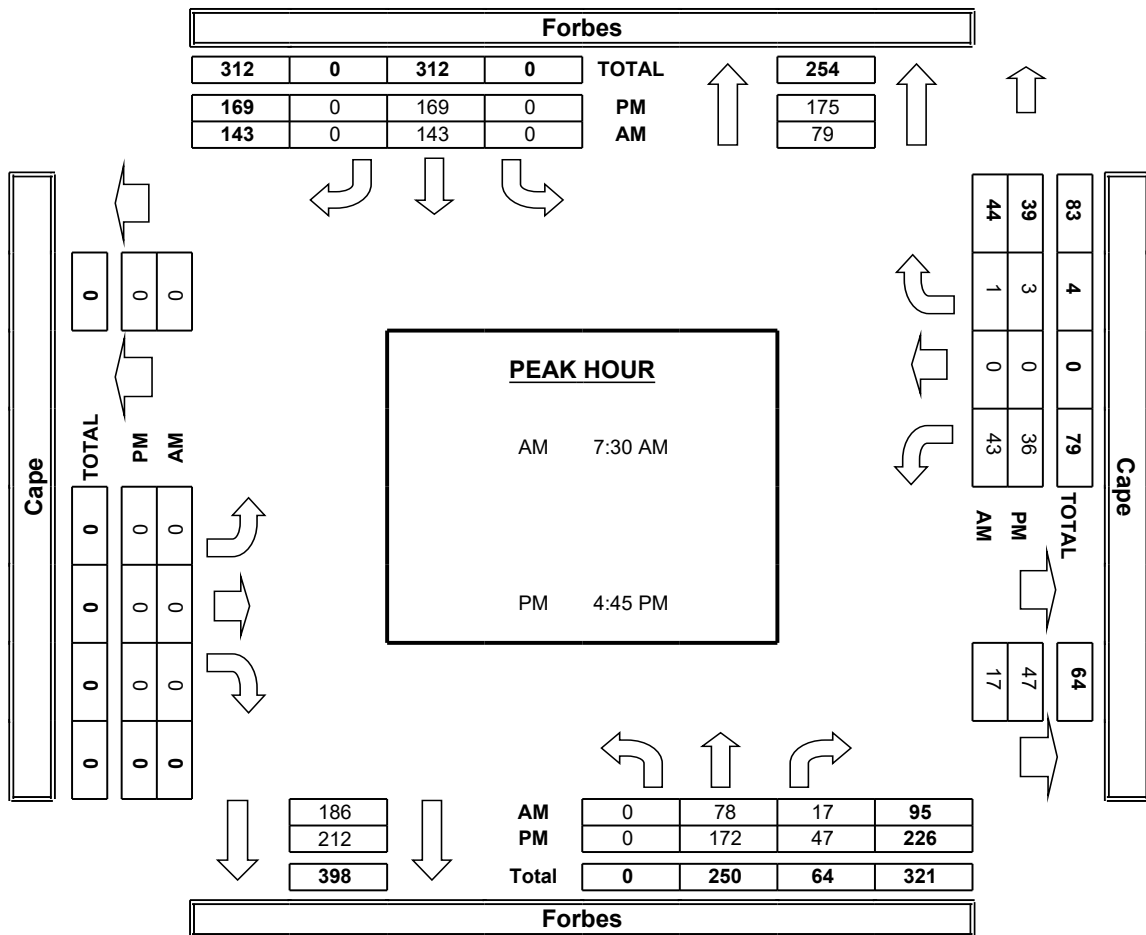
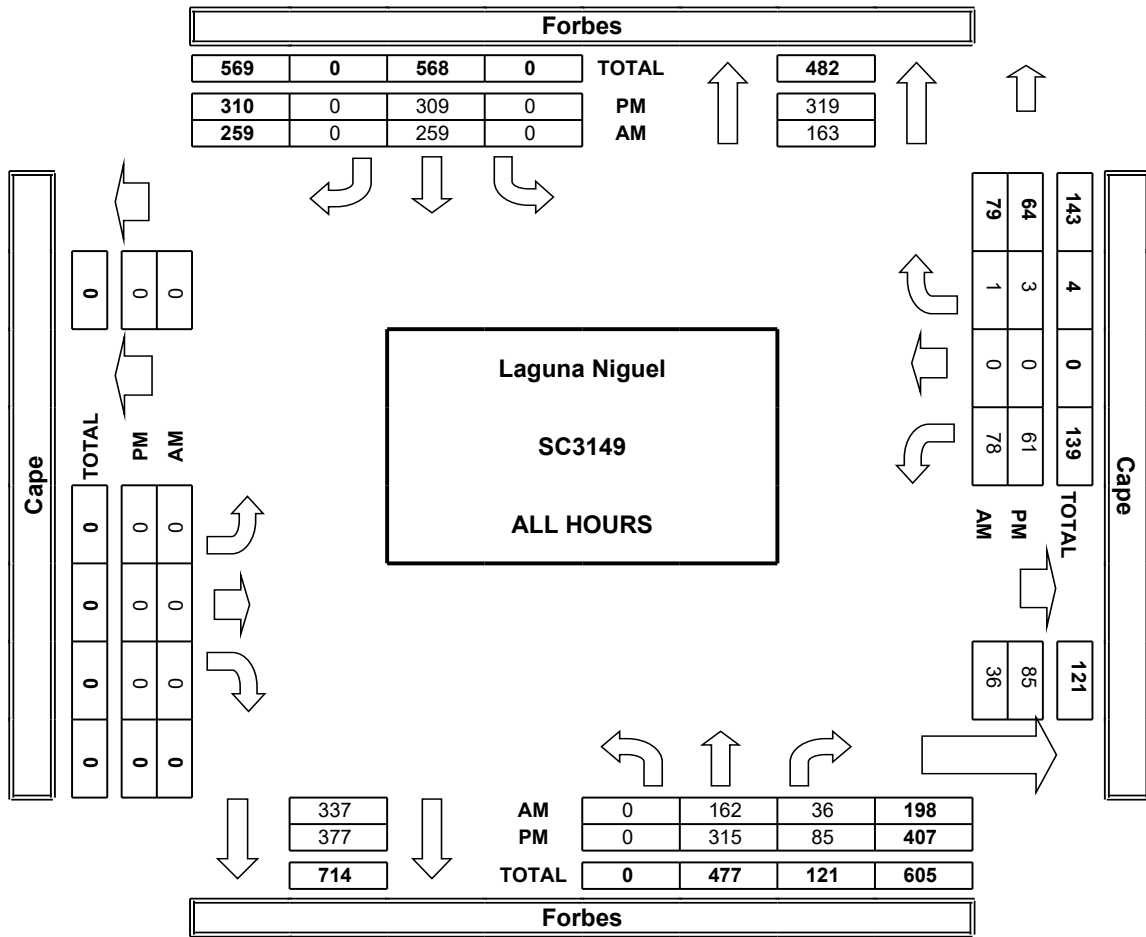
U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

[illegible]

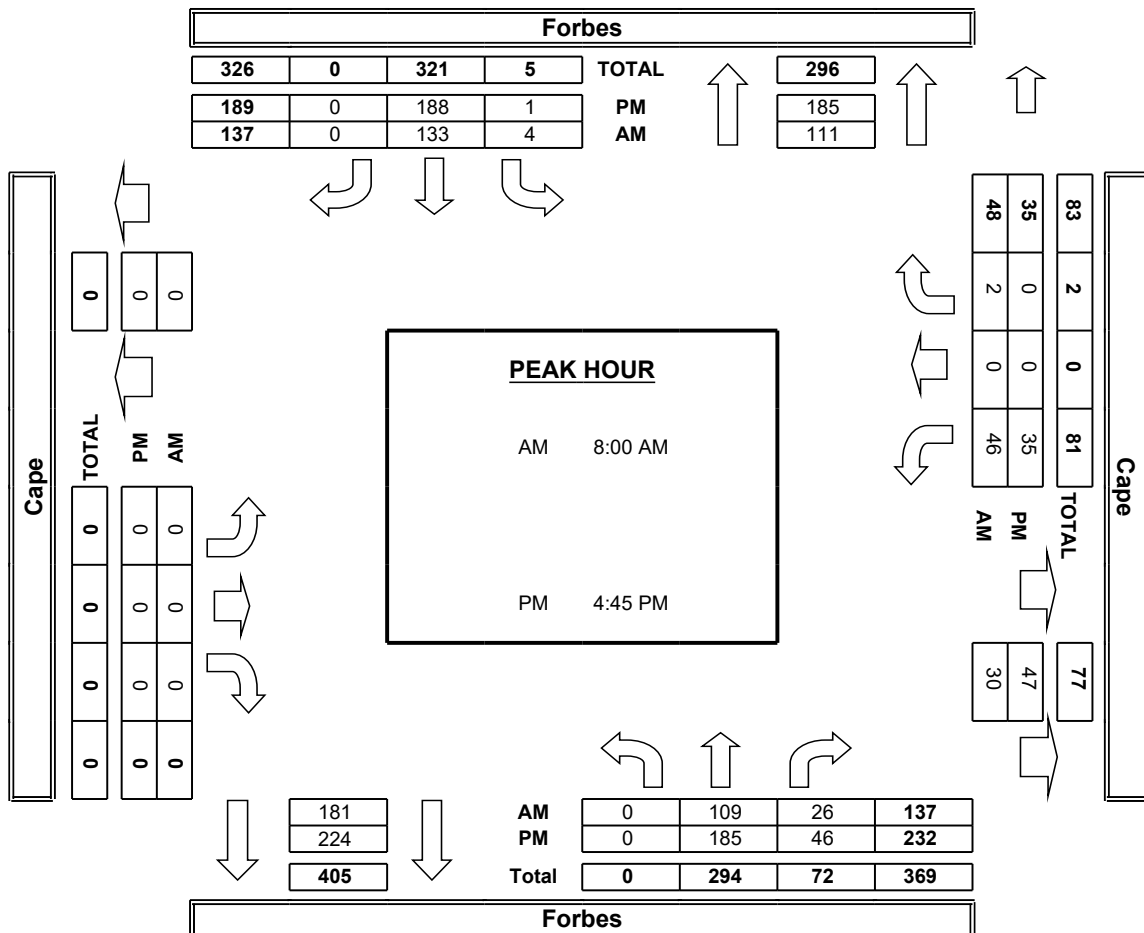
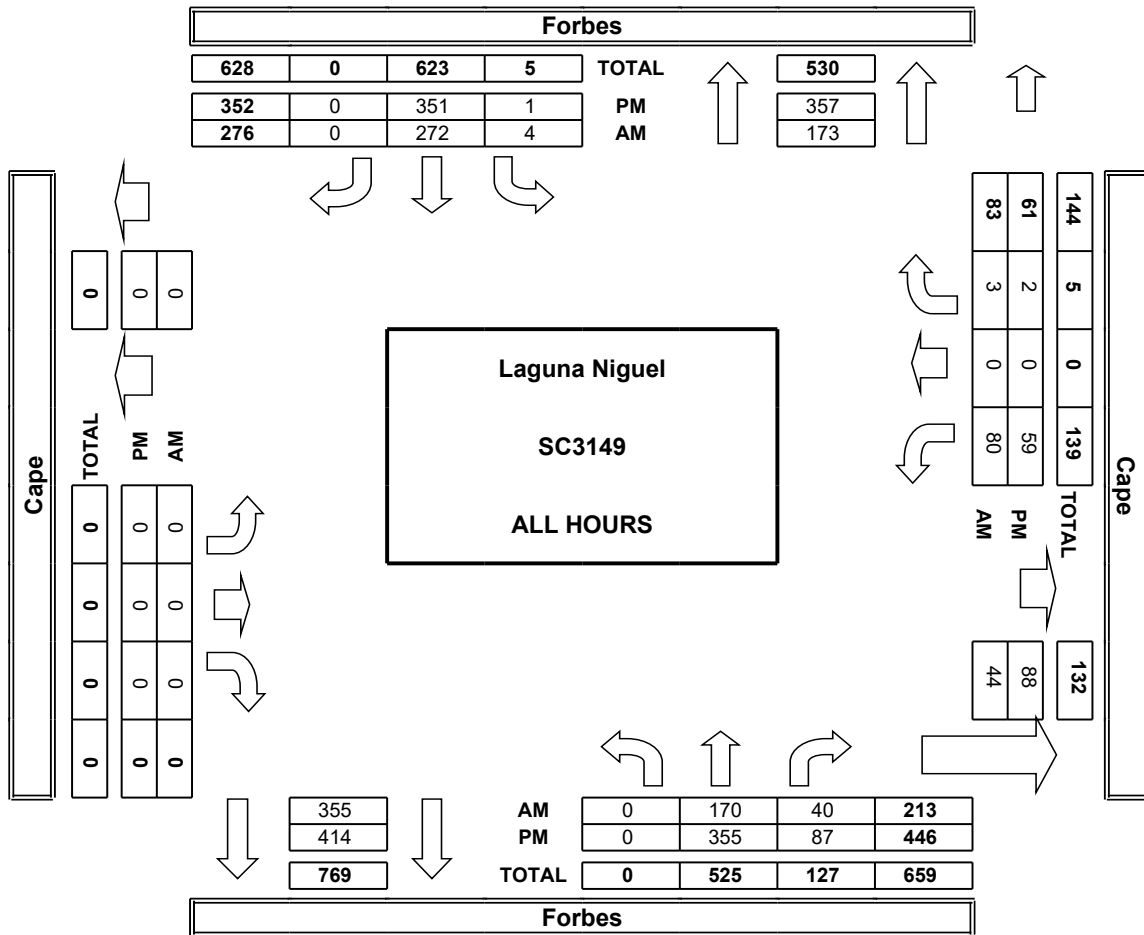
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
2	0	0	0	2
1	0	0	0	1
1	0	0	0	1
3	0	0	0	3
0	0	0	0	0
7	1	0	0	8

[illegible]

AimTD LLC
TURNING MOVEMENT COUNTS

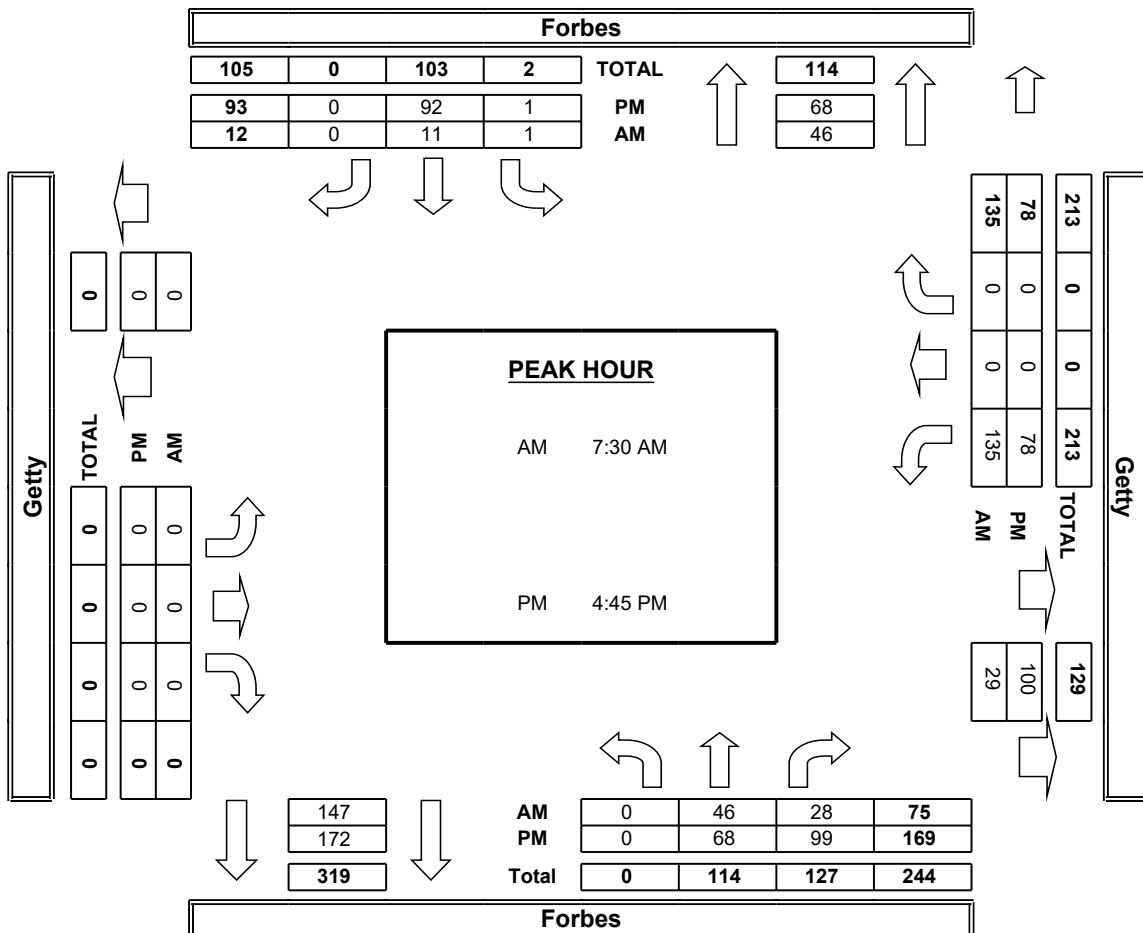
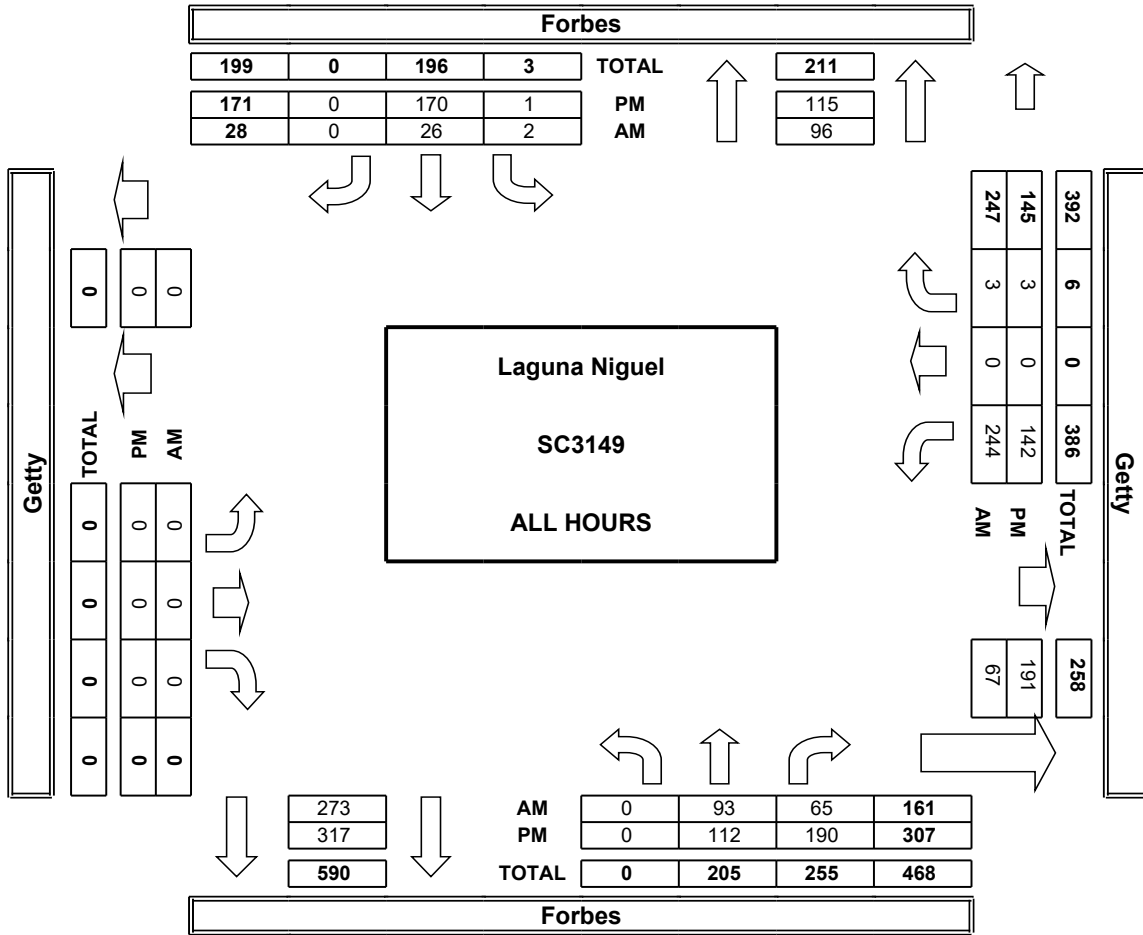


AimTD LLC
TURNING MOVEMENT COUNTS



[illegible]

AimTD LLC
TURNING MOVEMENT COUNTS

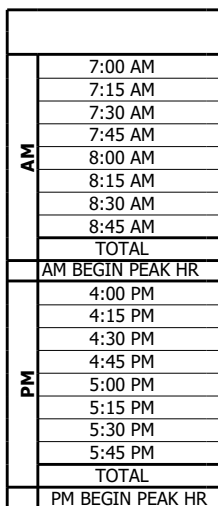


☐ Add U-Turns to Left Turns

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

0	0	0	0	0
1	0	0	0	1
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
1	0	0	0	1

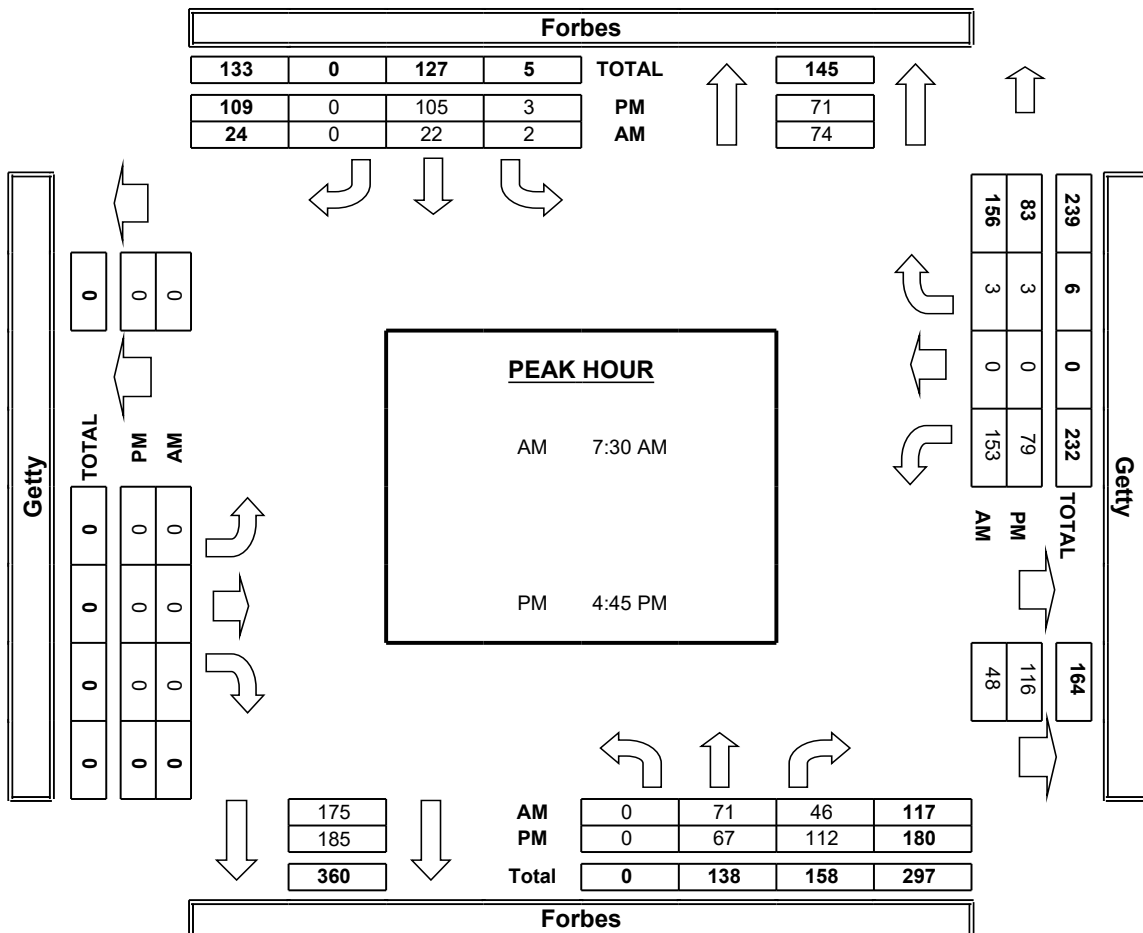
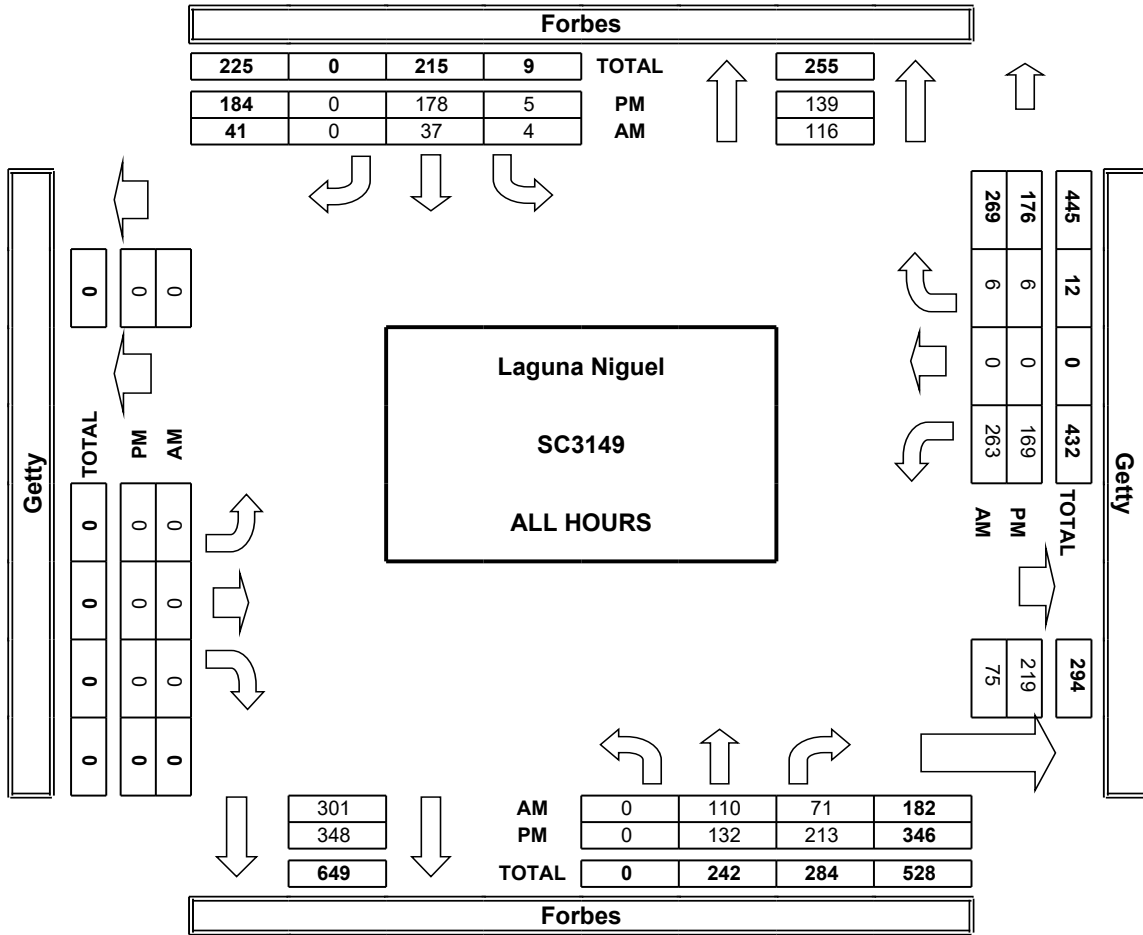
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
0	0	0	0	0
1	1	0	1	3



PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	2	1	0	3
0	4	2	0	6
0	0	2	0	2
0	0	1	0	1
0	5	0	0	5
0	8	3	0	11
0	3	1	0	4
0	1	1	0	2
0	23	11	0	34
0	13	6	0	19
0	3	3	0	6
0	2	1	0	3
0	7	3	0	10
0	1	0	0	1
0	5	0	0	5
0	2	1	0	3
0	2	0	0	2
0	7	0	0	7
0	29	8	0	37
0	10	1	0	11

[illegible]

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Tue, Nov 2, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: Marguerite
Crown Valley

PROJECT #: SC3149
LOCATION #: 12
CONTROL: SIGNAL

NOTES:					AM		▲	
					PM		N	
					MD	◀ W		E ▶
					OTHER		S	
					OTHER		▼	

☒ Add U-Turns to Left Turns

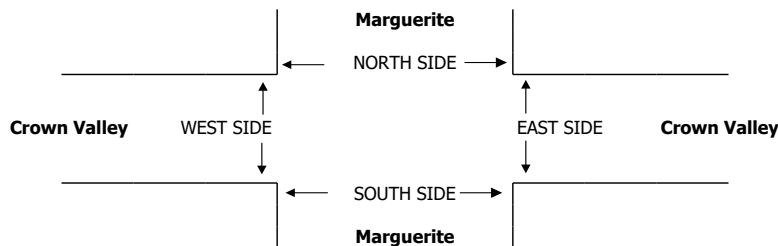
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marguerite			Marguerite			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	1	2	2	1	2	4	1	2	4	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	15	39	31	31	91	52	31	79	8	47	289	45	758
	7:15 AM	14	70	34	43	250	83	34	105	23	79	330	67	1,132
	7:30 AM	12	129	43	65	283	82	61	186	19	144	477	98	1,599
	7:45 AM	21	169	71	91	220	139	42	159	11	135	424	65	1,547
	8:00 AM	18	103	50	68	126	105	45	154	20	146	517	87	1,439
	8:15 AM	33	84	71	72	160	114	53	141	25	139	413	77	1,382
	8:30 AM	32	54	45	82	177	121	50	138	25	128	401	95	1,348
	8:45 AM	25	68	65	97	190	116	55	169	33	126	323	54	1,321
	VOLUMES	170	716	410	549	1,497	812	371	1,131	164	944	3,174	588	10,526
	APPROACH %	13%	55%	32%	19%	52%	28%	22%	68%	10%	20%	67%	12%	
	APP/DEPART	1,296	/	1,701	2,858	/	2,550	1,666	/	2,118	4,706	/	4,157	0
PM	BEGIN PEAK HR	7:30 AM												
	VOLUMES	84	485	235	296	789	440	201	640	75	564	1,831	327	5,967
	APPROACH %	10%	60%	29%	19%	52%	29%	22%	70%	8%	21%	67%	12%	
	PEAK HR FACTOR	0.770			0.847			0.861			0.907			0.933
	APP/DEPART	804	/	1,030	1,525	/	1,399	916	/	1,183	2,722	/	2,355	0
	4:00 PM	29	112	109	99	142	51	111	298	33	94	187	69	1,334
	4:15 PM	31	142	106	103	120	67	116	305	35	141	257	74	1,497
	4:30 PM	39	159	113	110	141	65	115	281	39	78	211	53	1,404
	4:45 PM	22	125	116	141	90	64	108	313	40	105	249	77	1,450
	5:00 PM	32	171	104	119	121	59	125	326	42	90	175	69	1,433
	5:15 PM	30	134	119	148	129	64	109	325	37	107	187	69	1,458
	5:30 PM	24	132	116	135	112	80	83	372	37	83	259	95	1,528
	5:45 PM	21	128	107	135	153	67	75	278	27	85	203	73	1,352
	VOLUMES	228	1,103	890	990	1,008	517	842	2,498	290	783	1,728	579	11,456
	APPROACH %	10%	50%	40%	39%	40%	21%	23%	69%	8%	25%	56%	19%	
	APP/DEPART	2,221	/	2,579	2,515	/	2,010	3,630	/	4,392	3,090	/	2,475	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	108	562	455	543	452	267	425	1,336	156	385	870	310	5,869
	APPROACH %	10%	50%	40%	43%	36%	21%	22%	70%	8%	25%	56%	20%	
	PEAK HR FACTOR	0.916			0.925			0.972			0.895			0.960
	APP/DEPART	1,125	/	1,331	1,262	/	947	1,917	/	2,346	1,565	/	1,245	0

0	2	1	4	7
0	1	0	3	4
0	2	0	5	7
0	7	0	9	16
0	4	0	6	10
0	4	0	9	13
0	3	0	9	12
0	4	0	10	14
0	27	1	55	83

0	0	1	6	7
0	6	1	12	19
2	11	1	2	16
0	11	1	15	27
2	9	0	15	26
0	10	2	15	27
1	7	0	4	12
0	8	1	7	16
5	62	7	76	150



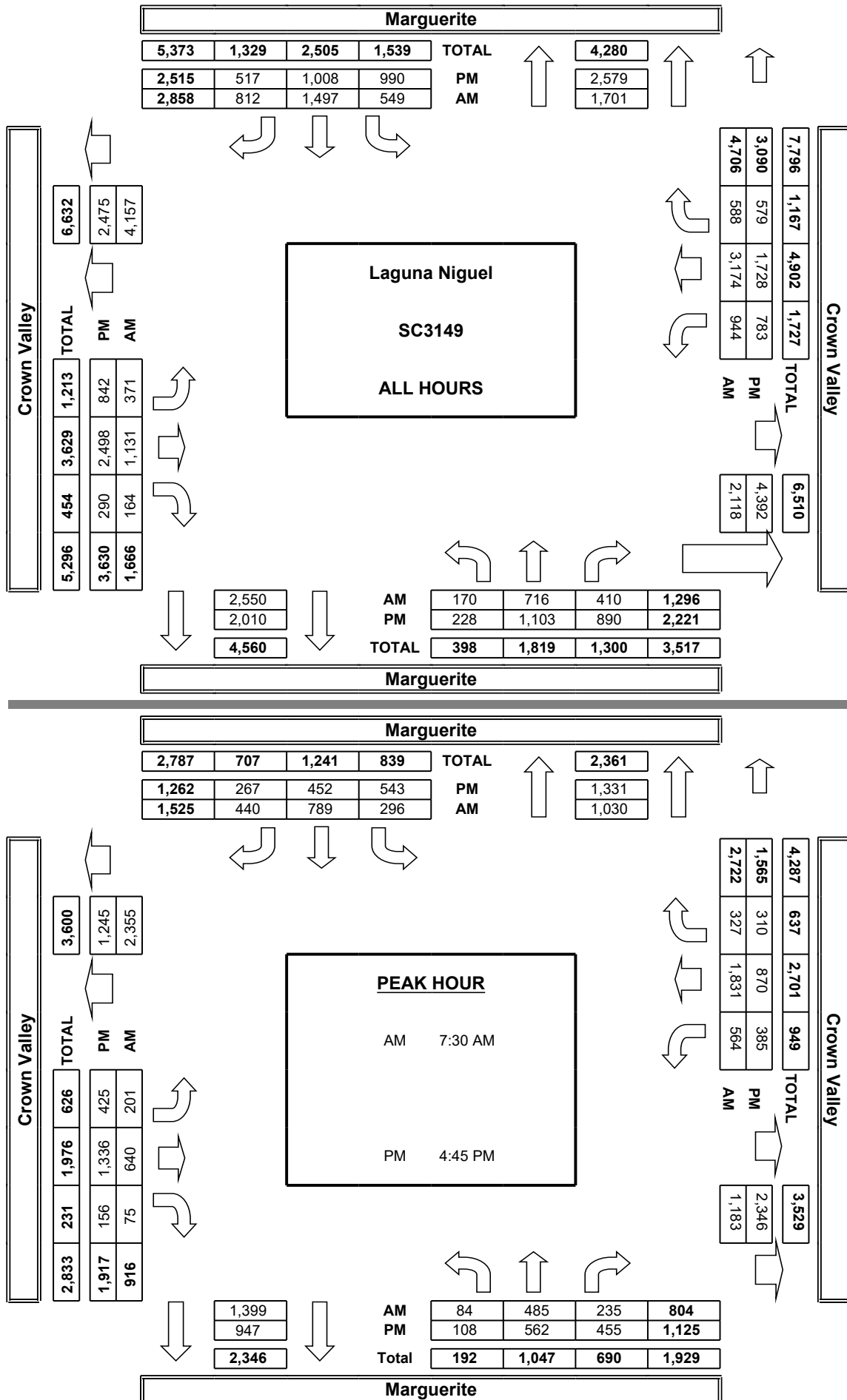
AM	7:00 AM	0	0	0	3	3
	7:15 AM	0	1	0	1	2
	7:30 AM	1	0	0	1	2
	7:45 AM	0	1	0	1	2
	8:00 AM	0	0	0	1	1
	8:15 AM	0	0	1	0	1
	8:30 AM	1	1	1	0	3
	8:45 AM	0	0	0	1	1
	TOTAL	2	3	2	8	15
	AM BEGIN PEAK HR	7:30 AM				
PM	4:00 PM	1	2	1	2	6
	4:15 PM	0	1	0	0	1
	4:30 PM	0	2	2	2	6
	4:45 PM	0	0	0	0	0
	5:00 PM	2	0	0	1	3
	5:15 PM	2	1	0	2	5
	5:30 PM	0	3	0	0	3
	5:45 PM	0	3	2	1	6
	TOTAL	5	12	5	8	30
	PM BEGIN PEAK HR	4:45 PM				

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	3	3
0	1	0	1	2
1	0	0	1	2
0	1	0	1	2
0	0	0	1	1
0	0	1	0	1
1	1	1	0	3
0	0	0	1	1
2	3	2	8	15
7:30 AM				
1	2	1	2	6
0	1	0	0	1
0	2	2	2	6
0	0	0	0	0
2	0	0	1	3
2	1	0	2	5
0	3	0	0	3
0	3	2	1	6
5	12	5	8	30
4:45 PM				

PEDESTRIAN CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
0	0	0	1	1	
0	1	0	1	2	
1	0	0	1	2	
0	1	0	1	2	
0	0	0	1	1	
0	0	0	0	0	
1	1	1	0	3	
0	0	0	0	0	
2	3	1	5	11	
1	1	0	3	5	
1	2	1	2	6	
0	1	0	0	1	
0	1	1	2	4	
0	0	0	0	0	
2	0	0	1	3	
2	0	0	2	4	
0	2	0	0	2	
0	1	1	1	3	
5	7	3	8	23	
4	2	0	3	9	

BICYCLE CROSSINGS					
NS	SS	ES	WS	TOTAL	
0	0	0	2	2	
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	
0	0	0	0	0	
0	0	0	1	1	
0	0	0	1	1	
0	2	1	0	3	
0	5	2	0	7	

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE:
Wed, Nov 3, 21

LOCATION:
NORTH & SOUTH: Laguna Niguel
EAST & WEST: Marguerite
Crown Valley

PROJECT #: SC3149
LOCATION #: 12
CONTROL: SIGNAL

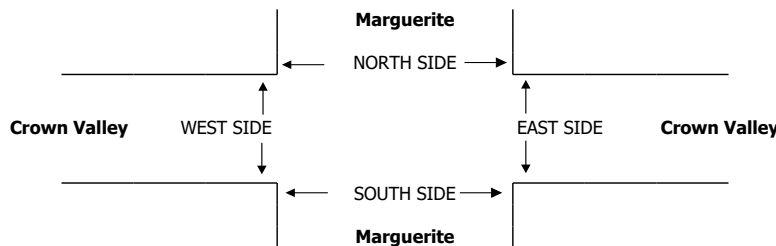
NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☒ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marguerite			Marguerite			Crown Valley			Crown Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	1	2	2	1	2	4	1	2	4	1	
7:00 AM	12	41	27	32	80	37	22	76	16	46	283	44	716
7:15 AM	11	67	38	59	238	77	35	114	26	93	347	56	1,161
7:30 AM	13	125	33	66	283	84	53	151	20	117	422	85	1,452
7:45 AM	22	167	60	91	218	137	53	162	17	114	414	89	1,544
8:00 AM	21	116	56	82	165	98	36	138	14	166	533	82	1,507
8:15 AM	32	81	67	77	164	116	53	170	30	124	385	92	1,391
8:30 AM	21	68	70	73	127	92	49	147	17	128	334	96	1,222
8:45 AM	24	61	53	96	179	113	56	172	29	124	303	70	1,280
VOLUMES	156	726	404	576	1,454	754	357	1,130	169	912	3,021	614	10,273
APPROACH %	12%	56%	31%	21%	52%	27%	22%	68%	10%	20%	66%	14%	
APP/DEPART	1,286	/	1,720	2,784	/	2,506	1,656	/	2,115	4,547	/	3,932	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	88	489	216	316	830	435	195	621	81	521	1,754	348	5,894
APPROACH %	11%	62%	27%	20%	52%	28%	22%	69%	9%	20%	67%	13%	
PEAK HR FACTOR	0.796			0.886			0.886			0.840			0.954
APP/DEPART	793	/	1,043	1,581	/	1,416	897	/	1,159	2,623	/	2,276	0
4:00 PM	28	137	112	112	148	68	104	273	32	68	246	92	1,420
4:15 PM	21	136	135	122	118	71	95	310	25	75	221	85	1,414
4:30 PM	27	142	124	157	103	63	125	347	32	70	212	87	1,489
4:45 PM	21	134	98	126	108	62	112	339	35	101	208	83	1,427
5:00 PM	30	183	106	143	149	65	114	357	28	94	252	86	1,607
5:15 PM	15	175	111	157	108	80	96	335	38	95	231	88	1,529
5:30 PM	30	147	130	150	117	69	115	356	40	67	215	77	1,513
5:45 PM	24	110	97	149	160	56	84	301	31	106	234	76	1,428
VOLUMES	196	1,164	913	1,116	1,011	534	845	2,618	261	676	1,819	674	11,827
APPROACH %	9%	51%	40%	42%	38%	20%	23%	70%	7%	21%	57%	21%	
APP/DEPART	2,273	/	2,739	2,661	/	1,893	3,724	/	4,643	3,169	/	2,552	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	99	615	444	599	534	270	409	1,349	137	362	932	327	6,077
APPROACH %	9%	53%	38%	43%	38%	19%	22%	71%	7%	22%	57%	20%	
PEAK HR FACTOR	0.908			0.961			0.927			0.938			0.945
APP/DEPART	1,158	/	1,383	1,403	/	1,000	1,895	/	2,391	1,621	/	1,303	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	
0	1	0	1	2
0	2	1	2	5
1	0	0	4	5
0	3	0	4	7
0	3	0	5	8
1	6	1	5	13
0	9	1	6	16
1	3	1	5	10
3	27	4	32	66

0	3	1	3	7
0	11	0	4	15
0	5	0	4	9
0	6	0	11	17
0	15	2	6	23
0	6	0	6	12
0	6	0	3	9
0	7	0	18	25
0	59	3	55	117



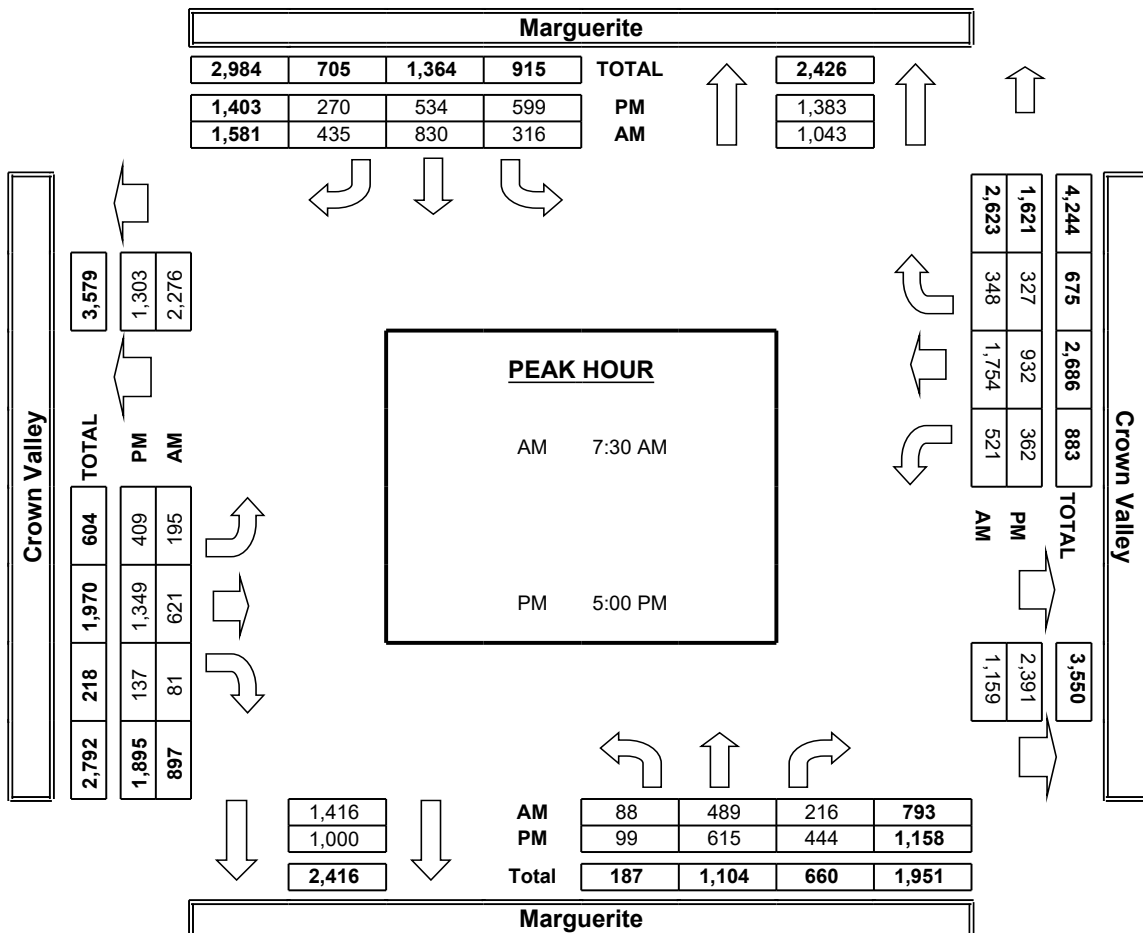
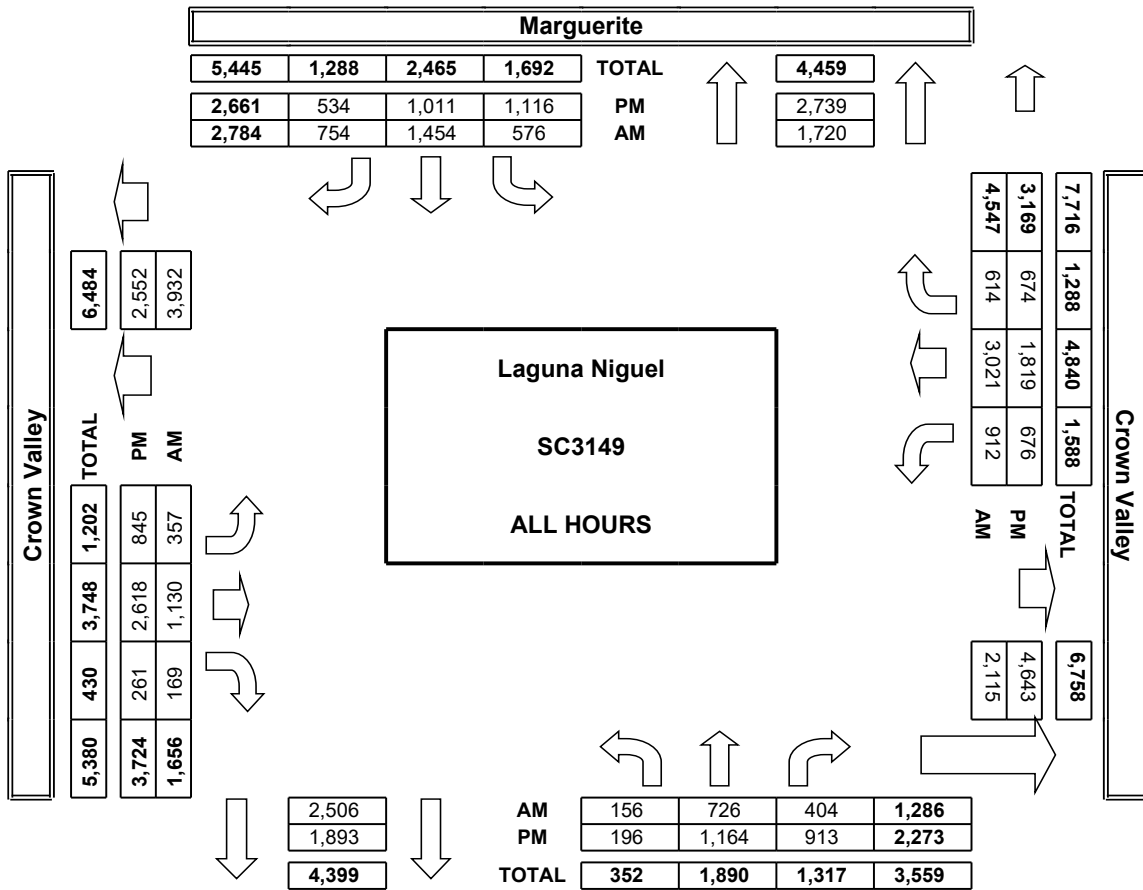
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
TOTAL	
AM BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
TOTAL	
PM BEGIN PEAK HR	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	1	2
0	1	0	0	1
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
1	2	4	1	8
1	0	0	0	1
0	0	2	0	2
3	3	7	3	16
7:30 AM				
0	1	2	2	5
2	0	2	0	4
0	2	1	1	4
0	0	1	0	1
2	1	1	3	7
1	0	1	1	3
0	1	2	0	3
0	1	0	0	1
5	6	10	7	28
5:00 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
1	2	4	1	8
1	0	0	0	1
0	0	2	0	2
3	3	7	2	15
1	2	5	2	10
0	1	1	2	4
2	0	1	0	3
0	1	0	1	2
0	0	0	0	0
2	1	0	2	5
1	0	1	1	3
0	1	2	0	3
0	1	0	0	1
5	5	5	6	21
3	3	3	3	12

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	1	1
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
0	1	5	1	7

AimTD LLC
TURNING MOVEMENT COUNTS



APPENDIX B

HCM ANALYSIS WORKSHEETS

EXISTING CONDITION

Laguna Niguel Gateway Specific Plan

Vistro File: C:\...MTE21002 Vistro ICU 121621.vistro

Scenario 1 Existing 2021 AM

Report File: C:\...E AM.pdf

1/10/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-5 NB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	NB Right	0.729	9.5	A
2	I-5 SB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	WB Left	0.732	29.2	C
3	Forbes Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.481	-	A
4	Cabot Road/Crown Valley Parkway	Signalized	ICU 1	EB Thru	0.681	-	B
5	Crown Valley Parkway/Greenfield Drive	Signalized	ICU 1	SB Right	0.736	-	C
6	Greenfield Drive/Rancho Niguel Road	Signalized	ICU 1	NB Right	0.589	-	A
7	Cabot Road/Paseo de Colinas	Signalized	ICU 1	EB Left	0.599	-	A
8	Cabot Road/Rapid Falls Road	Signalized	ICU 1	NB Thru	0.326	-	A
9	Cabot Road/Costco Entrance	Signalized	ICU 1	NB Thru	0.321	-	A
10	Forbes Road/Cape Drive	Two-way stop	HCM 6th Edition	WB Left	0.075	10.5	B
11	Forbes Road/Getty Drive	Two-way stop	HCM 6th Edition	WB Left	0.207	10.2	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-5 NB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.729

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	205	0	401	0	0	0	0	1783	701	0	1265	1186
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	205	0	401	0	0	0	0	1783	701	0	1265	1186
Peak Hour Factor	0.9390	1.0000	0.9390	1.0000	1.0000	1.0000	1.0000	0.9390	0.9390	1.0000	0.9390	0.9390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	0	107	0	0	0	0	475	187	0	337	316
Total Analysis Volume [veh/h]	218	0	427	0	0	0	0	1899	747	0	1347	1263
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	71	0	0	0	0	0	0	29	0	0	29	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	0	0	0	0	0	0	20	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		C	R	C	C	R
C, Cycle Length [s]	50	50		50	50	50	50	50
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13		29	29	29	29	29
g / C, Green / Cycle	0.25	0.25		0.58	0.58	0.58	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.19	0.19		0.37	0.46	0.36	0.40	0.40
s, saturation flow rate [veh/h]	1737	1615		5176	1615	3618	1615	1615
c, Capacity [veh/h]	445	414		3016	941	2108	941	941
d1, Uniform Delay [s]	17.00	17.03		6.83	8.04	6.76	7.25	7.25
k, delay calibration	0.11	0.11		0.11	0.28	0.11	0.21	0.21
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.55	2.81		0.22	3.93	0.30	1.77	1.77
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.75		0.63	0.79	0.62	0.69	0.69
d, Delay for Lane Group [s/veh]	19.55	19.84		7.05	11.97	7.06	9.02	9.02
Lane Group LOS	B	B		A	B	A	A	A
Critical Lane Group	No	Yes		No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.35	3.17		2.45	4.35	2.53	3.08	3.08
50th-Percentile Queue Length [ft/ln]	83.73	79.20		61.30	108.81	63.21	77.04	77.04
95th-Percentile Queue Length [veh/ln]	6.03	5.70		4.41	7.77	4.55	5.55	5.55
95th-Percentile Queue Length [ft/ln]	150.72	142.57		110.35	194.34	113.78	138.67	138.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.55	0.00	19.77	0.00	0.00	0.00	0.00	7.05	11.97	0.00	7.06	9.02
Movement LOS	B		B					A	B		A	A
d_A, Approach Delay [s/veh]	19.69			0.00			8.44			8.04		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	9.49											
Intersection LOS	A											
Intersection V/C	0.729											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	16.57	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.363	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2707	0	1010	1010
d_b, Bicycle Delay [s]	3.09	24.75	6.07	6.07
I_b,int, Bicycle LOS Score for Intersection	2.624	4.132	3.015	2.995
Bicycle LOS	B	D	C	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: I-5 SB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.732

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↵↵↵↵			↵			↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	185.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	887	7	631	0	1600	277	390	1080	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	887	7	631	0	1600	277	390	1080	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9615	0.9615	0.9615	1.0000	0.9615	0.9615	0.9615	0.9615	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	231	2	164	0	416	72	101	281	0
Total Analysis Volume [veh/h]	0	0	0	923	7	656	0	1664	288	406	1123	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	2	0	8	0	7	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	10	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	30	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	35	35	0	32	0	33	65	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	10	0	23	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No	No		No		No	No	
Maximum Recall					No	No		No		No	No	
Pedestrian Recall					No	No		No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	R	L	C
C, Cycle Length [s]		100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		35	35	35	29	29	24	57
g / C, Green / Cycle		0.35	0.35	0.35	0.29	0.29	0.24	0.57
(v / s)_i Volume / Saturation Flow Rate		0.17	0.17	0.23	0.24	0.18	0.22	0.22
s, saturation flow rate [veh/h]		3514	1811	2859	6901	1615	1810	5176
c, Capacity [veh/h]		1225	631	996	1980	463	442	2958
d1, Uniform Delay [s]		25.71	25.71	27.54	33.50	30.94	36.80	11.73
k, delay calibration		0.50	0.50	0.50	0.11	0.15	0.27	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.47	2.82	3.41	1.02	1.93	16.63	0.08
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.50	0.50	0.66	0.84	0.62	0.92	0.38
d, Delay for Lane Group [s/veh]		27.18	28.53	30.95	34.52	32.87	53.42	11.81
Lane Group LOS		C	C	C	C	C	D	B
Critical Lane Group		No	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		5.91	6.32	6.95	9.42	6.18	11.52	4.33
50th-Percentile Queue Length [ft/ln]		147.67	158.00	173.67	235.44	154.50	287.99	108.37
95th-Percentile Queue Length [veh/ln]		9.89	10.44	11.27	14.45	10.26	17.09	7.75
95th-Percentile Queue Length [ft/ln]		247.32	261.08	281.73	361.26	256.43	427.14	193.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	27.63	28.53	30.95	0.00	34.52	32.87	53.42	11.81	0.00
Movement LOS				C	C	C		C	C	D	B	
d_A, Approach Delay [s/veh]	0.00			29.01			34.28			22.86		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	29.18											
Intersection LOS	C											
Intersection V/C	0.732											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.113	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	620	560	1220
d_b, Bicycle Delay [s]	50.00	23.81	25.92	7.61
I_b,int, Bicycle LOS Score for Intersection	4.132	4.177	2.365	2.401
Bicycle LOS	D	D	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Forbes Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.481

Intersection Setup

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00	150.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	38	3	59	95	3	96	73	1713	77	111	1571	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	3	59	95	3	96	73	1713	77	111	1571	84
Peak Hour Factor	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	1	15	24	1	25	19	439	20	28	403	22
Total Analysis Volume [veh/h]	39	3	61	97	3	98	75	1757	79	114	1611	86
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.04	0.06	0.00	0.06	0.02	0.27	0.27	0.07	0.32	0.05
Intersection LOS	A											
Intersection V/C	0.481											

Intersection Level Of Service Report
Intersection 4: Cabot Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.681

Intersection Setup

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	80	256	341	201	222	242	246	1269	97	295	1240	151
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	256	341	201	222	242	246	1269	97	295	1240	151
Peak Hour Factor	0.9435	0.9435	0.9435	0.9435	0.9435	0.9435	0.9435	0.9435	0.9435	0.9435	0.9435	0.9435
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	68	90	53	59	64	65	336	26	78	329	40
Total Analysis Volume [veh/h]	85	271	361	213	235	256	261	1345	103	313	1314	160
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.08	0.21	0.06	0.14	0.14	0.08	0.26	0.06	0.09	0.26	0.09
Intersection LOS	B											
Intersection V/C	0.681											

Intersection Level Of Service Report
Intersection 5: Crown Valley Parkway/Greenfield Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.736

Intersection Setup

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			50.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Base Volume Input [veh/h]	405	1008	10	18	983	565	541	31	194	29	49	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	405	1008	10	18	983	565	541	31	194	29	49	47
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	267	3	5	261	150	143	8	51	8	13	12
Total Analysis Volume [veh/h]	429	1069	11	19	1042	599	574	33	206	31	52	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	2	0	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.21	0.21	0.01	0.20	0.35	0.17	0.02	0.12	0.02	0.04	0.04
Intersection LOS	C											
Intersection V/C	0.736											

Intersection Level Of Service Report
Intersection 6: Greenfield Drive/Rancho Niguel Road

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	105.00	100.00	100.00	195.00	100.00	100.00	115.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Base Volume Input [veh/h]	206	549	172	82	315	302	394	92	312	109	35	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	206	549	172	82	315	302	394	92	312	109	35	16
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	146	46	22	84	80	104	24	83	29	9	4
Total Analysis Volume [veh/h]	218	582	182	87	334	320	418	98	331	116	37	17
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.22	0.22	0.05	0.10	0.19	0.12	0.18	0.19	0.07	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.589											

Intersection Level Of Service Report
Intersection 7: Cabot Road/Paseo de Colinas

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	1	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	475.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		30.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Base Volume Input [veh/h]	129	313	485	621	360	125
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	313	485	621	360	125
Peak Hour Factor	0.9465	0.9465	0.9465	0.9465	0.9465	0.9465
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	83	128	164	95	33
Total Analysis Volume [veh/h]	136	331	512	656	380	132
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.10	0.30	0.19	0.15	0.15
Intersection LOS	A					
Intersection V/C	0.599					

Intersection Level Of Service Report

Intersection 8: Cabot Road/Rapid Falls Road

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: A
 Volume to Capacity (v/c): 0.326

Intersection Setup

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Base Volume Input [veh/h]	19	663	0	0	0	586	0	83	0	22	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	663	0	0	0	586	0	83	0	22	0	0	0
Peak Hour Factor	0.8830	0.8830	1.0000	0.883	1.000	0.883	1.000	0.8830	1.0000	0.8830	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	188	0	0	0	166	0	23	0	6	0	0	0
Total Analysis Volume [veh/h]	22	751	0	0	0	664	0	94	0	25	0	0	0
Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Prote	Permi	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	8	0	7	0	4	0	5	0	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.22	0.00	0.00	0.00	0.20	0.00	0.06	0.00	0.01	0.00	0.00	0.00
Intersection LOS	A												
Intersection V/C	0.326												

Intersection Level Of Service Report

Intersection 9: Cabot Road/Costco Entrance

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.321

Intersection Setup

Name	Cabot Rd		Cabot Rd		Costco Ent	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Cabot Rd		Cabot Rd		Costco Ent	
Base Volume Input [veh/h]	592	63	62	482	23	99
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	592	63	62	482	23	99
Peak Hour Factor	0.9260	0.9260	0.9260	0.9260	0.9260	0.9260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	160	17	17	130	6	27
Total Analysis Volume [veh/h]	639	68	67	521	25	107
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.04	0.02	0.15	0.01	0.06
Intersection LOS	A					
Intersection V/C	0.321					

Intersection Level Of Service Report
Intersection 10: Forbes Road/Cape Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.075

Intersection Setup

Name	Forbes Rd		Forbes Rd		Cape Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Cape Dr	
Base Volume Input [veh/h]	94	22	2	138	45	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	22	2	138	45	2
Peak Hour Factor	0.8535	0.8535	0.8535	0.8535	0.8535	0.8535
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	6	1	40	13	1
Total Analysis Volume [veh/h]	110	26	2	162	53	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.08	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.47	0.00	10.53	9.28
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.25	0.25
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.10	0.10	6.27	6.27
d_A, Approach Delay [s/veh]	0.00		0.09		10.49	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.67					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 11: Forbes Road/Getty Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.207

Intersection Setup

Name	Forbes Rd		Forbes Rd		Getty Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Getty Dr	
Base Volume Input [veh/h]	59	37	2	17	144	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	37	2	17	144	2
Peak Hour Factor	0.7940	0.7940	0.7940	0.7940	0.7940	0.7940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	12	1	5	45	1
Total Analysis Volume [veh/h]	74	47	3	21	181	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.21	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.44	0.00	10.21	9.83
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.79	0.79
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.15	0.15	19.80	19.80
d_A, Approach Delay [s/veh]	0.00		0.93		10.21	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.78					
Intersection LOS	B					

Laguna Niguel Gateway Specific Plan

Vistro File: C:\...\MTE21002 Vistro ICU 121621.vistro

Scenario 2 Existing 2021 PM

Report File: C:\...\E PM.pdf

1/10/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-5 NB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	NB Right	0.684	9.6	A
2	I-5 SB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	WB Left	0.842	31.0	C
3	Forbes Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.629	-	B
4	Cabot Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.778	-	C
5	Crown Valley Parkway/Greenfield Drive	Signalized	ICU 1	SB Right	0.740	-	C
6	Greenfield Drive/Rancho Niguel Road	Signalized	ICU 1	SB Right	0.695	-	B
7	Cabot Road/Paseo de Colinas	Signalized	ICU 1	WB Thru	0.666	-	B
8	Cabot Road/Rapid Falls Road	Signalized	ICU 1	SB Thru	0.319	-	A
9	Cabot Road/Costco Entrance	Signalized	ICU 1	SB Thru	0.494	-	A
10	Forbes Road/Cape Drive	Two-way stop	HCM 6th Edition	WB Left	0.063	11.4	B
11	Forbes Road/Getty Drive	Two-way stop	HCM 6th Edition	WB Left	0.110	10.4	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-5 NB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	9.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.684

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	237	0	411	0	0	0	0	1990	648	0	1461	1156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	237	0	411	0	0	0	0	1990	648	0	1461	1156
Peak Hour Factor	0.9725	1.0000	0.9725	1.0000	1.0000	1.0000	1.0000	0.9725	0.9725	1.0000	0.9725	0.9725
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	0	106	0	0	0	0	512	167	0	376	297
Total Analysis Volume [veh/h]	244	0	423	0	0	0	0	2046	666	0	1502	1189
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	71	0	0	0	0	0	0	29	0	0	29	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	0	0	0	0	0	0	20	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		C	R	C	C	R
C, Cycle Length [s]	50	50		50	50	50	50	50
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13		29	29	29	29	29
g / C, Green / Cycle	0.26	0.26		0.58	0.58	0.58	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.20	0.20		0.40	0.41	0.37	0.42	0.42
s, saturation flow rate [veh/h]	1748	1615		5176	1615	3618	1615	1615
c, Capacity [veh/h]	456	422		3006	938	2101	938	938
d1, Uniform Delay [s]	17.20	17.25		7.35	7.56	7.08	7.62	7.62
k, delay calibration	0.11	0.11		0.11	0.23	0.11	0.23	0.23
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.58	2.90		0.28	2.10	0.33	2.22	2.22
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	0.76		0.68	0.71	0.64	0.72	0.72
d, Delay for Lane Group [s/veh]	19.79	20.15		7.62	9.66	7.40	9.84	9.84
Lane Group LOS	B	C		A	A	A	A	A
Critical Lane Group	No	Yes		No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.55	3.35		2.93	3.41	2.81	3.50	3.50
50th-Percentile Queue Length [ft/ln]	88.68	83.79		73.25	85.36	70.15	87.40	87.40
95th-Percentile Queue Length [veh/ln]	6.39	6.03		5.27	6.15	5.05	6.29	6.29
95th-Percentile Queue Length [ft/ln]	159.63	150.82		131.85	153.64	126.26	157.31	157.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.79	0.00	20.07	0.00	0.00	0.00	0.00	7.62	9.66	0.00	7.40	9.84
Movement LOS	B		C					A	A		A	A
d_A, Approach Delay [s/veh]	19.96			0.00			8.12			8.62		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	9.65											
Intersection LOS	A											
Intersection V/C	0.684											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	17.04	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.344	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2655	0	991	991
d_b, Bicycle Delay [s]	2.71	25.23	6.43	6.43
I_b,int, Bicycle LOS Score for Intersection	2.660	4.132	3.051	3.040
Bicycle LOS	B	D	C	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: I-5 SB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↰↱↰↱			↰			↰		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	185.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	860	1	846	0	1762	283	363	1342	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	860	1	846	0	1762	283	363	1342	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9395	0.9395	0.9395	1.0000	0.9395	0.9395	0.9395	0.9395	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	229	0	225	0	469	75	97	357	0
Total Analysis Volume [veh/h]	0	0	0	915	1	900	0	1875	301	386	1428	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	2	0	8	0	7	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	10	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	30	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	14	14	0	32	0	54	86	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	10	0	23	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No	No		No		No	No	
Maximum Recall					No	No		No		No	No	
Pedestrian Recall					No	No		No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	R	L	C
C, Cycle Length [s]		100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		35	35	35	30	30	23	57
g / C, Green / Cycle		0.35	0.35	0.35	0.30	0.30	0.23	0.57
(v / s)_i Volume / Saturation Flow Rate		0.17	0.17	0.31	0.27	0.19	0.21	0.28
s, saturation flow rate [veh/h]		3514	1810	2859	6901	1615	1810	5176
c, Capacity [veh/h]		1222	629	994	2060	482	423	2962
d1, Uniform Delay [s]		25.71	25.70	31.06	33.78	30.24	37.31	12.63
k, delay calibration		0.50	0.50	0.50	0.11	0.17	0.24	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.44	2.77	13.26	1.83	2.12	15.22	0.12
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.49	0.49	0.91	0.91	0.62	0.91	0.48
d, Delay for Lane Group [s/veh]		27.14	28.47	44.32	35.61	32.36	52.53	12.75
Lane Group LOS		C	C	D	D	C	D	B
Critical Lane Group		No	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		5.81	6.21	11.84	10.95	6.43	10.82	5.95
50th-Percentile Queue Length [ft/ln]		145.19	155.35	295.95	273.68	160.63	270.41	148.66
95th-Percentile Queue Length [veh/ln]		9.76	10.30	17.48	16.37	10.58	16.21	9.95
95th-Percentile Queue Length [ft/ln]		244.00	257.56	437.02	409.34	264.56	405.25	248.64

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	27.59	28.47	44.32	0.00	35.61	32.36	52.53	12.75	0.00
Movement LOS				C	C	D		D	C	D	B	
d_A, Approach Delay [s/veh]	0.00			35.88			35.16			21.21		
Approach LOS	A			D			D			C		
d_I, Intersection Delay [s/veh]	31.03											
Intersection LOS	C											
Intersection V/C	0.842											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.101	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	200	560	1640
d_b, Bicycle Delay [s]	50.00	40.50	25.92	1.62
I_b,int, Bicycle LOS Score for Intersection	4.132	4.556	2.457	2.557
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 3: Forbes Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.629

Intersection Setup

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00	150.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	62	1	84	120	3	111	106	1883	26	46	2015	139
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	1	84	120	3	111	106	1883	26	46	2015	139
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	0	22	32	1	29	28	499	7	12	534	37
Total Analysis Volume [veh/h]	66	1	89	127	3	118	112	1995	28	49	2135	147
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.05	0.07	0.00	0.07	0.03	0.30	0.30	0.03	0.42	0.09
Intersection LOS	B											
Intersection V/C	0.629											

Intersection Level Of Service Report

Intersection 4: Cabot Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	167	263	355	239	273	219	222	1256	111	559	1405	209
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	167	263	355	239	273	219	222	1256	111	559	1405	209
Peak Hour Factor	0.9475	0.9475	0.9475	0.9475	0.9475	0.9475	0.9475	0.9475	0.9475	0.9475	0.9475	0.9475
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	69	94	63	72	58	59	331	29	147	371	55
Total Analysis Volume [veh/h]	176	278	375	252	288	231	234	1326	117	590	1483	221
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.08	0.22	0.07	0.15	0.15	0.07	0.26	0.07	0.17	0.29	0.13
Intersection LOS	C											
Intersection V/C	0.778											

Intersection Level Of Service Report
Intersection 5: Crown Valley Parkway/Greenfield Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.740

Intersection Setup

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			50.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Base Volume Input [veh/h]	320	863	18	35	1111	593	617	62	232	27	34	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	320	863	18	35	1111	593	617	62	232	27	34	28
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	229	5	9	295	157	164	16	62	7	9	7
Total Analysis Volume [veh/h]	339	915	19	37	1178	629	654	66	246	29	36	30
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Split	Split	Split	Split	Split	Split
Signal Group	0	6	0	5	2	2	0	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.18	0.18	0.02	0.23	0.37	0.19	0.04	0.14	0.02	0.03	0.03
Intersection LOS	C											
Intersection V/C	0.740											

Intersection Level Of Service Report
Intersection 6: Greenfield Drive/Rancho Niguel Road

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.695

Intersection Setup

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	105.00	100.00	100.00	195.00	100.00	100.00	115.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Base Volume Input [veh/h]	374	382	130	90	527	372	301	73	252	191	77	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	374	382	130	90	527	372	301	73	252	191	77	24
Peak Hour Factor	0.9145	0.9145	0.9145	0.9145	0.9145	0.9145	0.9145	0.9145	0.9145	0.9145	0.9145	0.9145
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	102	104	36	25	144	102	82	20	69	52	21	7
Total Analysis Volume [veh/h]	409	418	142	98	576	407	329	80	276	209	84	26
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.16	0.16	0.06	0.17	0.24	0.10	0.15	0.16	0.12	0.06	0.06
Intersection LOS	B											
Intersection V/C	0.695											

Intersection Level Of Service Report Intersection 7: Cabot Road/Paseo de Colinas

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.666

Intersection Setup

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	⇐⇐⇐⇐⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	475.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		30.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Base Volume Input [veh/h]	118	478	306	439	531	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	118	478	306	439	531	213
Peak Hour Factor	0.8750	0.8750	0.8750	0.8750	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	137	87	125	152	61
Total Analysis Volume [veh/h]	135	546	350	502	607	243
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.16	0.21	0.15	0.25	0.25
Intersection LOS	B					
Intersection V/C	0.666					

Intersection Level Of Service Report

Intersection 8: Cabot Road/Rapid Falls Road

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: A
 Volume to Capacity (v/c): 0.319

Intersection Setup

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Base Volume Input [veh/h]	25	637	0	0	0	698	0	60	0	23	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	637	0	0	0	698	0	60	0	23	0	0	0
Peak Hour Factor	0.9475	0.9475	1.0000	0.947	1.000	0.947	1.000	0.9475	1.0000	0.9475	0.9475	0.9475	0.9475
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	168	0	0	0	184	0	16	0	6	0	0	0
Total Analysis Volume [veh/h]	26	672	0	0	0	737	0	63	0	24	0	0	0
Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Prote	Permi	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	8	0	7	0	4	0	5	0	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.20	0.00	0.00	0.00	0.22	0.00	0.04	0.00	0.01	0.00	0.00	0.00
Intersection LOS	A												
Intersection V/C	0.319												

Intersection Level Of Service Report
Intersection 9: Cabot Road/Costco Entrance

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.494

Intersection Setup

Name	Cabot Rd		Cabot Rd		Costco Ent	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Cabot Rd		Cabot Rd		Costco Ent	
Base Volume Input [veh/h]	515	100	249	557	82	269
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	515	100	249	557	82	269
Peak Hour Factor	0.8615	0.8615	0.8615	0.8615	0.8615	0.8615
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	149	29	72	162	24	78
Total Analysis Volume [veh/h]	598	116	289	647	95	312
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.07	0.09	0.19	0.06	0.18
Intersection LOS	A					
Intersection V/C	0.494					

Intersection Level Of Service Report

Intersection 10: Forbes Road/Cape Drive

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.063

Intersection Setup

Name	Forbes Rd		Forbes Rd		Cape Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Cape Dr	
Base Volume Input [veh/h]	179	47	1	179	36	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	179	47	1	179	36	2
Peak Hour Factor	0.9425	0.9425	0.9425	0.9425	0.9425	0.9425
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	12	0	47	10	1
Total Analysis Volume [veh/h]	190	50	1	190	38	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.69	0.00	11.38	9.75
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.21	0.21
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.06	0.06	5.23	5.23
d_A, Approach Delay [s/veh]	0.00		0.04		11.29	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.98					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 11: Forbes Road/Getty Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.110

Intersection Setup

Name	Forbes Rd		Forbes Rd		Getty Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Getty Dr	
Base Volume Input [veh/h]	68	106	2	99	79	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	106	2	99	79	2
Peak Hour Factor	0.9465	0.9465	0.9465	0.9465	0.9465	0.9465
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	28	1	26	21	1
Total Analysis Volume [veh/h]	72	112	2	105	83	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.11	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.57	0.00	10.37	9.48
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.38	0.38
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.11	0.11	9.43	9.43
d_A, Approach Delay [s/veh]	0.00		0.14		10.35	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.38					
Intersection LOS	B					

FORECAST YEAR 2045 NO PROJECT CONDITIONS

Laguna Niguel Gateway Specific Plan

Vistro File: C:\...\GSP Baseline.vistro

Scenario 4 Future NP 2045 PM

Report File: C:\...\Future NP 2045 PM.pdf

2/23/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-5 NB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	NB Right	0.667	7.8	A
2	I-5 SB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	WB Left	0.721	27.6	C
3	Forbes Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.630	-	B
4	Cabot Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.823	-	D
5	Crown Valley Parkway/Greenfield Drive	Signalized	ICU 1	SB Right	0.771	-	C
6	Greenfield Drive/Rancho Niguel Road	Signalized	ICU 1	SB Right	0.721	-	C
7	Cabot Road/Paseo de Colinas	Signalized	ICU 1	WB Thru	0.702	-	C
8	Cabot Road/Rapid Falls Road	Signalized	ICU 1	SB Thru	0.334	-	A
9	Cabot Road/Costco Entrance	Signalized	ICU 1	SB Thru	0.519	-	A
10	Forbes Road/Cape Drive	Two-way stop	HCM 6th Edition	WB Left	0.126	12.7	B
11	Forbes Road/Getty Drive	Two-way stop	HCM 6th Edition	WB Left	0.155	10.9	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-5 NB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	7.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	264	0	440	0	0	0	0	2141	705	0	1583	1238
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	264	0	440	0	0	0	0	2141	705	0	1583	1238
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	0	110	0	0	0	0	535	176	0	396	310
Total Analysis Volume [veh/h]	264	0	440	0	0	0	0	2141	705	0	1583	1238
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	35	0	0	0	0	0	0	65	0	0	65	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	0	0	0	0	0	0	21	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R		C	C	R	C	C	R
C, Cycle Length [s]	44	44		44	44	44	44	44	44
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10		26	26	26	26	26	26
g / C, Green / Cycle	0.23	0.23		0.59	0.59	0.59	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15		0.33	0.35	0.35	0.39	0.44	0.44
s, saturation flow rate [veh/h]	3514	2859		5176	1617	1615	3618	1615	1615
c, Capacity [veh/h]	816	663		3033	948	946	2120	946	946
d1, Uniform Delay [s]	14.03	15.33		5.63	5.82	5.82	6.18	6.69	6.69
k, delay calibration	0.11	0.11		0.11	0.11	0.11	0.11	0.19	0.19
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	1.15		0.17	0.61	0.62	0.36	2.04	2.04
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.66		0.56	0.60	0.60	0.67	0.75	0.75
d, Delay for Lane Group [s/veh]	14.25	16.48		5.79	6.43	6.44	6.54	8.73	8.73
Lane Group LOS	B	B		A	A	A	A	A	A
Critical Lane Group	No	Yes		No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.95	1.79		1.50	1.66	1.66	2.08	2.68	2.68
50th-Percentile Queue Length [ft/ln]	23.78	44.78		37.44	41.57	41.61	52.05	66.89	66.89
95th-Percentile Queue Length [veh/ln]	1.71	3.22		2.70	2.99	3.00	3.75	4.82	4.82
95th-Percentile Queue Length [ft/ln]	42.80	80.60		67.40	74.82	74.89	93.70	120.40	120.40

Movement, Approach, & Intersection Results

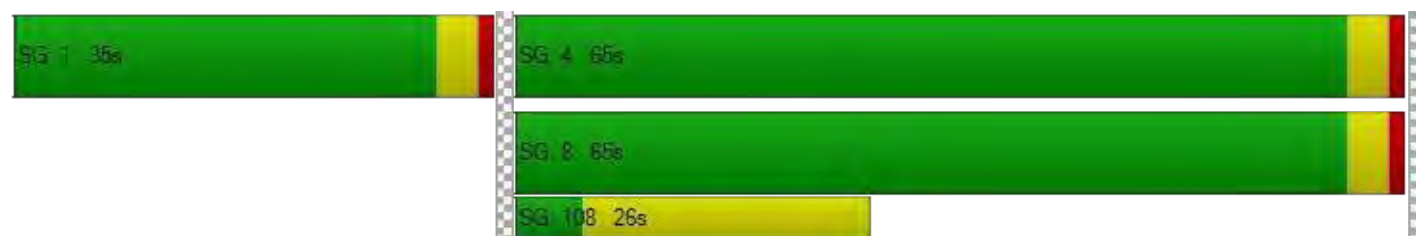
d_M, Delay for Movement [s/veh]	14.25	0.00	16.48	0.00	0.00	0.00	0.00	5.79	6.44	0.00	6.54	8.73
Movement LOS	B		B					A	A		A	A
d_A, Approach Delay [s/veh]	15.64			0.00			6.05			7.64		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	7.81											
Intersection LOS	A											
Intersection V/C	0.667											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	13.87	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.645	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1413	0	2780	2780
d_b, Bicycle Delay [s]	1.89	21.94	3.34	3.34
I_b,int, Bicycle LOS Score for Intersection	1.560	4.132	2.734	3.111
Bicycle LOS	A	D	B	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: I-5 SB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	27.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.721

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↰↱↰↱			↰			↰		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	185.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	954	1	977	0	1974	321	402	1517	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	954	1	977	0	1974	321	402	1517	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	239	0	244	0	494	80	101	379	0
Total Analysis Volume [veh/h]	0	0	0	954	1	977	0	1974	321	402	1517	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	2	0	8	0	7	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	10	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	30	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	48	48	0	32	0	20	52	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	10	0	23	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No	No		No		No	No	
Maximum Recall					No	No		No		No	No	
Pedestrian Recall					No	No		No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	R	L	C
C, Cycle Length [s]		100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		44	44	44	29	29	14	48
g / C, Green / Cycle		0.44	0.44	0.44	0.29	0.29	0.14	0.48
(v / s)_i Volume / Saturation Flow Rate		0.18	0.18	0.34	0.23	0.20	0.11	0.29
s, saturation flow rate [veh/h]		3514	1810	2859	8626	1615	3514	5176
c, Capacity [veh/h]		1557	802	1267	2541	476	500	2468
d1, Uniform Delay [s]		18.89	18.89	23.55	32.27	31.05	41.55	19.36
k, delay calibration		0.50	0.50	0.50	0.11	0.20	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.78	1.52	4.58	0.53	3.12	3.10	0.25
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.40	0.40	0.77	0.78	0.67	0.80	0.61
d, Delay for Lane Group [s/veh]		19.68	20.41	28.14	32.79	34.17	44.65	19.62
Lane Group LOS		B	C	C	C	C	D	B
Critical Lane Group		No	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		5.00	5.31	10.14	8.63	7.11	4.97	8.40
50th-Percentile Queue Length [ft/ln]		124.98	132.80	253.47	215.76	177.68	124.27	209.95
95th-Percentile Queue Length [veh/ln]		8.67	9.09	15.36	13.45	11.48	8.63	13.15
95th-Percentile Queue Length [ft/ln]		216.65	227.29	384.01	336.20	286.99	215.68	328.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	19.92	20.41	28.14	0.00	32.79	34.17	44.65	19.62	0.00
Movement LOS				B	C	C		C	C	D	B	
d_A, Approach Delay [s/veh]	0.00			24.08			32.99			24.86		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	27.65											
Intersection LOS	C											
Intersection V/C	0.721											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.074	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	880	560	960
d_b, Bicycle Delay [s]	50.00	15.68	25.92	13.52
I_b,int, Bicycle LOS Score for Intersection	4.132	4.747	2.317	2.615
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 3: Forbes Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.630

Intersection Setup

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00	150.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	38	2	92	159	4	108	117	2081	30	50	2028	190
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	2	92	159	4	108	117	2081	30	50	2028	190
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	1	23	40	1	27	29	520	8	13	507	48
Total Analysis Volume [veh/h]	38	2	92	159	4	108	117	2081	30	50	2028	190
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.05	0.09	0.00	0.06	0.03	0.31	0.31	0.03	0.40	0.11
Intersection LOS	B											
Intersection V/C	0.630											

Intersection Level Of Service Report
Intersection 4: Cabot Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.823

Intersection Setup

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	176	303	401	272	308	215	250	1396	119	623	1556	268
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	176	303	401	272	308	215	250	1396	119	623	1556	268
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	76	100	68	77	54	63	349	30	156	389	67
Total Analysis Volume [veh/h]	176	303	401	272	308	215	250	1396	119	623	1556	268
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.09	0.24	0.08	0.15	0.15	0.07	0.27	0.07	0.18	0.31	0.16
Intersection LOS	D											
Intersection V/C	0.823											

Intersection Level Of Service Report
Intersection 5: Crown Valley Parkway/Greenfield Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.771

Intersection Setup

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			50.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Base Volume Input [veh/h]	353	965	20	38	1205	656	689	69	256	30	37	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	353	965	20	38	1205	656	689	69	256	30	37	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	241	5	10	301	164	172	17	64	8	9	8
Total Analysis Volume [veh/h]	353	965	20	38	1205	656	689	69	256	30	37	31
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Split	Split	Split	Split	Split	Split
Signal Group	0	6	0	5	2	2	0	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.19	0.19	0.02	0.24	0.39	0.20	0.04	0.15	0.02	0.03	0.03
Intersection LOS	C											
Intersection V/C	0.771											

Intersection Level Of Service Report
Intersection 6: Greenfield Drive/Rancho Niguel Road

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.721

Intersection Setup

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	105.00	100.00	100.00	195.00	100.00	100.00	115.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Base Volume Input [veh/h]	425	437	148	103	608	423	342	83	288	218	87	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	425	437	148	103	608	423	342	83	288	218	87	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	106	109	37	26	152	106	86	21	72	55	22	7
Total Analysis Volume [veh/h]	425	437	148	103	608	423	342	83	288	218	87	26
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.17	0.17	0.06	0.18	0.25	0.10	0.16	0.17	0.13	0.07	0.07
Intersection LOS	C											
Intersection V/C	0.721											

Intersection Level Of Service Report

Intersection 7: Cabot Road/Paseo de Colinas

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	⇐⇐⇐⇐⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	475.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		30.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Base Volume Input [veh/h]	142	584	386	514	610	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	142	584	386	514	610	250
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	146	97	129	153	63
Total Analysis Volume [veh/h]	142	584	386	514	610	250
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.17	0.23	0.15	0.25	0.25
Intersection LOS	C					
Intersection V/C	0.702					

Intersection Level Of Service Report

Intersection 8: Cabot Road/Rapid Falls Road

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: A
 Volume to Capacity (v/c): 0.334

Intersection Setup

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Base Volume Input [veh/h]	27	722	0	0	0	782	0	65	0	25	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	722	0	0	0	782	0	65	0	25	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	181	0	0	0	196	0	16	0	6	0	0	0
Total Analysis Volume [veh/h]	27	722	0	0	0	782	0	65	0	25	0	0	0
Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Prote	Permi	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	8	0	7	0	4	0	5	0	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.21	0.00	0.00	0.00	0.23	0.00	0.04	0.00	0.01	0.00	0.00	0.00
Intersection LOS	A												
Intersection V/C	0.334												

Intersection Level Of Service Report

Intersection 9: Cabot Road/Costco Entrance

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name	Cabot Rd		Cabot Rd		Costco Ent	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Cabot Rd		Cabot Rd		Costco Ent	
Base Volume Input [veh/h]	642	121	301	689	99	325
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	642	121	301	689	99	325
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	161	30	75	172	25	81
Total Analysis Volume [veh/h]	642	121	301	689	99	325
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.07	0.09	0.20	0.06	0.19
Intersection LOS	A					
Intersection V/C	0.519					

Intersection Level Of Service Report

Intersection 10: Forbes Road/Cape Drive

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.126

Intersection Setup

Name	Forbes Rd		Forbes Rd		Cape Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Cape Dr	
Base Volume Input [veh/h]	231	87	1	225	67	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	231	87	1	225	67	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	22	0	56	17	1
Total Analysis Volume [veh/h]	231	87	1	225	67	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.13	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.87	0.00	12.75	10.67
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.44	0.44
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.06	0.06	10.97	10.97
d_A, Approach Delay [s/veh]	0.00		0.03		12.69	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.44					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 11: Forbes Road/Getty Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.155

Intersection Setup

Name	Forbes Rd		Forbes Rd		Getty Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Getty Dr	
Base Volume Input [veh/h]	73	151	3	110	113	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	151	3	110	113	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	38	1	28	28	1
Total Analysis Volume [veh/h]	73	151	3	110	113	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.16	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.66	0.00	10.88	9.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.56	0.56
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.17	0.17	14.05	14.05
d_A, Approach Delay [s/veh]	0.00		0.20		10.85	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.83					
Intersection LOS	B					

Laguna Niguel Gateway Specific Plan

Vistro File: C:\...\GSP Baseline.vistro

Scenario 3 Future NP 2045 AM

Report File: C:\...\Future NP 2045 AM.pdf

2/24/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-5 NB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	NB Right	0.667	7.9	A
2	I-5 SB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	WB Left	0.615	27.0	C
3	Forbes Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.541	-	A
4	Cabot Road/Crown Valley Parkway	Signalized	ICU 1	EB Thru	0.736	-	C
5	Crown Valley Parkway/Greenfield Drive	Signalized	ICU 1	SB Right	0.787	-	C
6	Greenfield Drive/Rancho Niguel Road	Signalized	ICU 1	NB Thru	0.627	-	B
7	Cabot Road/Paseo de Colinas	Signalized	ICU 1	EB Left	0.647	-	B
8	Cabot Road/Rapid Falls Road	Signalized	ICU 1	NB Thru	0.354	-	A
9	Cabot Road/Costco Entrance	Signalized	ICU 1	NB Thru	0.341	-	A
10	Forbes Road/Cape Drive	Two-way stop	HCM 6th Edition	WB Left	0.158	11.8	B
11	Forbes Road/Getty Drive	Two-way stop	HCM 6th Edition	WB Left	0.282	10.9	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-5 NB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶↶↶↶						↶			↶		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	239	0	456	0	0	0	0	2045	822	0	1441	1347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	0	456	0	0	0	0	2045	822	0	1441	1347
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	0	114	0	0	0	0	511	206	0	360	337
Total Analysis Volume [veh/h]	239	0	456	0	0	0	0	2045	822	0	1441	1347
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	45	0	0	0	0	0	0	55	0	0	55	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	0	0	0	0	0	0	21	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R		C	C	R	C	C	R
C, Cycle Length [s]	44	44		44	44	44	44	44	44
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10		25	25	25	25	25	25
g / C, Green / Cycle	0.24	0.24		0.58	0.58	0.58	0.58	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.07	0.16		0.33	0.36	0.36	0.39	0.43	0.43
s, saturation flow rate [veh/h]	3514	2859		5176	1615	1615	3618	1615	1615
c, Capacity [veh/h]	832	677		3008	939	939	2103	939	939
d1, Uniform Delay [s]	13.74	15.23		5.77	5.98	5.98	6.27	6.78	6.78
k, delay calibration	0.11	0.11		0.11	0.11	0.11	0.11	0.18	0.18
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	1.18		0.17	0.65	0.65	0.36	1.97	1.97
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.67		0.57	0.61	0.61	0.66	0.74	0.74
d, Delay for Lane Group [s/veh]	13.93	16.41		5.95	6.62	6.62	6.63	8.75	8.75
Lane Group LOS	B	B		A	A	A	A	A	A
Critical Lane Group	No	Yes		No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.84	1.85		1.56	1.74	1.74	2.11	2.68	2.68
50th-Percentile Queue Length [ft/ln]	21.12	46.29		39.06	43.42	43.42	52.64	66.88	66.88
95th-Percentile Queue Length [veh/ln]	1.52	3.33		2.81	3.13	3.13	3.79	4.82	4.82
95th-Percentile Queue Length [ft/ln]	38.01	83.33		70.32	78.15	78.15	94.75	120.38	120.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.93	0.00	16.41	0.00	0.00	0.00	0.00	5.95	6.62	0.00	6.63	8.75
Movement LOS	B		B					A	A		A	A
d_A, Approach Delay [s/veh]	15.56			0.00			6.22			7.69		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	7.89											
Intersection LOS	A											
Intersection V/C	0.667											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	13.85	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.662	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1870	0	2326	2326
d_b, Bicycle Delay [s]	0.09	21.93	0.58	0.58
I_b,int, Bicycle LOS Score for Intersection	1.560	4.132	2.742	3.093
Bicycle LOS	A	D	B	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: I-5 SB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	27.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.615

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↵↵↵↵			↵			↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	185.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	984	7	716	0	1819	318	433	1207	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	984	7	716	0	1819	318	433	1207	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	246	2	179	0	455	80	108	302	0
Total Analysis Volume [veh/h]	0	0	0	984	7	716	0	1819	318	433	1207	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	2	0	8	0	7	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	10	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	30	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	44	44	0	32	0	24	56	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	10	0	23	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No	No		No		No	No	
Maximum Recall					No	No		No		No	No	
Pedestrian Recall					No	No		No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	R	L	C
C, Cycle Length [s]		100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		45	45	45	28	28	15	47
g / C, Green / Cycle		0.45	0.45	0.45	0.28	0.28	0.15	0.47
(v / s)_i Volume / Saturation Flow Rate		0.19	0.19	0.25	0.21	0.20	0.12	0.23
s, saturation flow rate [veh/h]		3514	1811	2859	8626	1615	3514	5176
c, Capacity [veh/h]		1566	807	1274	2441	457	532	2455
d1, Uniform Delay [s]		18.88	18.88	20.50	32.58	32.01	41.08	18.02
k, delay calibration		0.50	0.50	0.50	0.11	0.20	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.82	1.59	1.80	0.46	3.49	3.09	0.15
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.42	0.42	0.56	0.75	0.70	0.81	0.49
d, Delay for Lane Group [s/veh]		19.70	20.46	22.30	33.04	35.50	44.16	18.17
Lane Group LOS		B	C	C	C	D	D	B
Critical Lane Group		No	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		5.20	5.53	6.29	7.92	7.19	5.34	6.19
50th-Percentile Queue Length [ft/ln]		130.12	138.27	157.28	197.91	179.71	133.48	154.71
95th-Percentile Queue Length [veh/ln]		8.95	9.39	10.40	12.53	11.59	9.13	10.27
95th-Percentile Queue Length [ft/ln]		223.66	234.70	260.12	313.27	289.63	228.22	256.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	19.96	20.46	22.30	0.00	33.04	35.50	44.16	18.17	0.00
Movement LOS				B	C	C		C	D	D	B	
d_A, Approach Delay [s/veh]	0.00			20.94			33.41			25.04		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	27.02											
Intersection LOS	C											
Intersection V/C	0.615											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.091	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	800	560	1040
d_b, Bicycle Delay [s]	50.00	18.00	25.92	11.52
I_b,int, Bicycle LOS Score for Intersection	4.132	4.376	2.265	2.462
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 3: Forbes Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.541

Intersection Setup

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00	150.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	42	4	70	142	5	139	94	1890	85	126	1725	111
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	4	70	142	5	139	94	1890	85	126	1725	111
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	1	18	36	1	35	24	473	21	32	431	28
Total Analysis Volume [veh/h]	42	4	70	142	5	139	94	1890	85	126	1725	111
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.04	0.08	0.00	0.08	0.03	0.29	0.29	0.07	0.34	0.07
Intersection LOS	A											
Intersection V/C	0.541											

Intersection Level Of Service Report

Intersection 4: Cabot Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.736

Intersection Setup

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	89	296	389	249	264	284	243	1443	102	344	1419	184
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	296	389	249	264	284	243	1443	102	344	1419	184
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	74	97	62	66	71	61	361	26	86	355	46
Total Analysis Volume [veh/h]	89	296	389	249	264	284	243	1443	102	344	1419	184
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.09	0.23	0.07	0.16	0.16	0.07	0.28	0.06	0.10	0.28	0.11
Intersection LOS	C											
Intersection V/C	0.736											

Intersection Level Of Service Report
Intersection 5: Crown Valley Parkway/Greenfield Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			50.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Base Volume Input [veh/h]	458	1106	11	20	1127	649	610	35	220	33	55	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	458	1106	11	20	1127	649	610	35	220	33	55	53
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	115	277	3	5	282	162	153	9	55	8	14	13
Total Analysis Volume [veh/h]	458	1106	11	20	1127	649	610	35	220	33	55	53
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	2	0	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.22	0.22	0.01	0.22	0.38	0.18	0.02	0.13	0.02	0.04	0.04
Intersection LOS	C											
Intersection V/C	0.787											

Intersection Level Of Service Report
Intersection 6: Greenfield Drive/Rancho Niguel Road

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.627

Intersection Setup

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	105.00	100.00	100.00	195.00	100.00	100.00	115.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Base Volume Input [veh/h]	233	632	195	92	354	341	445	104	353	123	39	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	233	632	195	92	354	341	445	104	353	123	39	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	158	49	23	89	85	111	26	88	31	10	5
Total Analysis Volume [veh/h]	233	632	195	92	354	341	445	104	353	123	39	18
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.24	0.24	0.05	0.10	0.20	0.13	0.19	0.21	0.07	0.03	0.03
Intersection LOS	B											
Intersection V/C	0.627											

Intersection Level Of Service Report Intersection 7: Cabot Road/Paseo de Colinas

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.647

Intersection Setup

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	⇐⇐⇐⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	1	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	475.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		30.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Base Volume Input [veh/h]	143	373	557	675	401	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	143	373	557	675	401	141
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	93	139	169	100	35
Total Analysis Volume [veh/h]	143	373	557	675	401	141
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.11	0.33	0.20	0.16	0.16
Intersection LOS	B					
Intersection V/C	0.647					

Intersection Level Of Service Report

Intersection 8: Cabot Road/Rapid Falls Road

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: A
 Volume to Capacity (v/c): 0.354

Intersection Setup

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd			Rapid Falls Rd		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd			Rapid Falls Rd		
Base Volume Input [veh/h]	23	834	0	0	0	713	0	100	0	26	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	834	0	0	0	713	0	100	0	26	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	209	0	0	0	178	0	25	0	7	0	0	0
Total Analysis Volume [veh/h]	23	834	0	0	0	713	0	100	0	26	0	0	0
Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Prote	Permi	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	8	0	7	0	4	0	5	0	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.25	0.00	0.00	0.00	0.21	0.00	0.06	0.00	0.02	0.00	0.00	0.00
Intersection LOS	A												
Intersection V/C	0.354												

Intersection Level Of Service Report

Intersection 9: Cabot Road/Costco Entrance

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.341

Intersection Setup

Name	Cabot Rd		Cabot Rd		Costco Ent	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Cabot Rd		Cabot Rd		Costco Ent	
Base Volume Input [veh/h]	692	72	71	573	26	114
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	692	72	71	573	26	114
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	173	18	18	143	7	29
Total Analysis Volume [veh/h]	692	72	71	573	26	114
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.20	0.04	0.02	0.17	0.02	0.07
Intersection LOS	A					
Intersection V/C	0.341					

Intersection Level Of Service Report
Intersection 10: Forbes Road/Cape Drive

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.158

Intersection Setup

Name	Forbes Rd		Forbes Rd		Cape Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Cape Dr	
Base Volume Input [veh/h]	138	47	2	214	100	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	138	47	2	214	100	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	12	1	54	25	1
Total Analysis Volume [veh/h]	138	47	2	214	100	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.16	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.57	0.00	11.77	10.13
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.57	0.57
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.11	0.11	14.21	14.21
d_A, Approach Delay [s/veh]	0.00		0.07		11.74	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.41					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 11: Forbes Road/Getty Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.282

Intersection Setup

Name	Forbes Rd		Forbes Rd		Getty Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Getty Dr	
Base Volume Input [veh/h]	79	71	3	21	241	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	71	3	21	241	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	18	1	5	60	1
Total Analysis Volume [veh/h]	79	71	3	21	241	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.28	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.50	0.00	10.89	10.50
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	1.19	1.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.16	0.16	29.63	29.63
d_A, Approach Delay [s/veh]	0.00		0.94		10.89	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	6.42					
Intersection LOS	B					

FORECAST YEAR 2045 WITH PROJECT CONDITIONS

Laguna Niguel Gateway Specific Plan

Vistro File: C:\...\GSP Baseline.vistro

Scenario 8 Future WP 2045 PM_v2

Report File: C:\...\Future WP 2045 PM.pdf

2/24/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-5 NB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	NB Right	0.675	8.3	A
2	I-5 SB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	WB Left	0.722	27.7	C
3	Forbes Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.864	-	D
4	Cabot Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.998	-	E
5	Crown Valley Parkway/Greenfield Drive	Signalized	ICU 1	SB Right	0.827	-	D
6	Greenfield Drive/Rancho Niguel Road	Signalized	ICU 1	SB Right	0.721	-	C
7	Cabot Road/Paseo de Colinas	Signalized	ICU 1	WB Thru	0.757	-	C
8	Cabot Road/Rapid Falls Road	Signalized	ICU 1	SB Thru	0.345	-	A
9	Cabot Road/Costco Entrance	Signalized	ICU 1	WB Right	0.603	-	B
10	Forbes Road/Cape Drive	Two-way stop	HCM 6th Edition	WB Left	0.186	12.7	B
11	Forbes Road/Getty Drive	Two-way stop	HCM 6th Edition	WB Left	0.200	10.9	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-5 NB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	8.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.675

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶↶↶↶						↶			↶		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	264	0	440	0	0	0	0	2141	705	0	1583	1238
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	52	0	0	0	0	0	0	111	127	0	72	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	316	0	440	0	0	0	0	2252	832	0	1655	1238
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	79	0	110	0	0	0	0	563	208	0	414	310
Total Analysis Volume [veh/h]	316	0	440	0	0	0	0	2252	832	0	1655	1238
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	71	0	0	0	0	0	0	29	0	0	29	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	0	0	0	0	0	0	20	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R		C	C	R	C	C	R
C, Cycle Length [s]	46	46		46	46	46	46	46	46
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11		28	28	28	28	28	28
g / C, Green / Cycle	0.23	0.23		0.60	0.60	0.60	0.60	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.09	0.15		0.36	0.38	0.38	0.40	0.45	0.45
s, saturation flow rate [veh/h]	3514	2859		5176	1615	1615	3618	1615	1615
c, Capacity [veh/h]	815	663		3083	962	962	2155	962	962
d1, Uniform Delay [s]	15.03	16.16		5.90	6.13	6.13	6.32	6.86	6.86
k, delay calibration	0.11	0.11		0.11	0.15	0.15	0.11	0.22	0.22
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	1.15		0.19	1.00	1.00	0.37	2.49	2.49
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.66		0.60	0.64	0.64	0.67	0.75	0.75
d, Delay for Lane Group [s/veh]	15.33	17.31		6.09	7.13	7.13	6.68	9.36	9.36
Lane Group LOS	B	B		A	A	A	A	A	A
Critical Lane Group	No	Yes		No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.25	1.92		1.83	2.11	2.11	2.34	3.09	3.09
50th-Percentile Queue Length [ft/ln]	31.20	48.10		45.78	52.83	52.83	58.52	77.26	77.26
95th-Percentile Queue Length [veh/ln]	2.25	3.46		3.30	3.80	3.80	4.21	5.56	5.56
95th-Percentile Queue Length [ft/ln]	56.16	86.57		82.40	95.09	95.09	105.34	139.06	139.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.33	0.00	17.31	0.00	0.00	0.00	0.00	6.09	7.13	0.00	6.68	9.36
Movement LOS	B		B					A	A		A	A
d_A, Approach Delay [s/veh]	16.48			0.00			6.50			8.02		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	8.28											
Intersection LOS	A											
Intersection V/C	0.675											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.99	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.677	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2899	0	1082	1082
d_b, Bicycle Delay [s]	4.67	23.12	4.87	4.87
I_b,int, Bicycle LOS Score for Intersection	1.560	4.132	2.832	3.151
Bicycle LOS	A	D	C	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: I-5 SB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	27.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.722

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↵↵↵↵↵			↵			↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	185.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	954	1	977	0	1974	321	402	1517	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	72	0	238	12	0	124	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	954	1	1049	0	2212	333	402	1641	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	239	0	262	0	553	83	101	410	0
Total Analysis Volume [veh/h]	0	0	0	954	1	1049	0	2212	333	402	1641	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	2	0	8	0	7	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	10	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	30	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	14	14	0	32	0	54	86	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	10	0	23	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No	No		No		No	No	
Maximum Recall					No	No		No		No	No	
Pedestrian Recall					No	No		No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	R	L	C
C, Cycle Length [s]		100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		44	44	44	30	30	14	48
g / C, Green / Cycle		0.44	0.44	0.44	0.30	0.30	0.14	0.48
(v / s)_i Volume / Saturation Flow Rate		0.18	0.18	0.34	0.23	0.21	0.11	0.32
s, saturation flow rate [veh/h]		3514	1810	3101	9500	1615	3514	5176
c, Capacity [veh/h]		1540	793	1359	2849	484	498	2493
d1, Uniform Delay [s]		19.22	19.22	23.84	31.95	30.88	41.59	19.67
k, delay calibration		0.50	0.50	0.50	0.11	0.22	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.81	1.56	4.30	0.47	3.53	3.15	0.30
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.41	0.41	0.77	0.78	0.69	0.81	0.66
d, Delay for Lane Group [s/veh]		20.03	20.78	28.14	32.42	34.41	44.73	19.97
Lane Group LOS		C	C	C	C	C	D	B
Critical Lane Group		No	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		5.06	5.37	10.89	9.63	7.42	4.97	9.29
50th-Percentile Queue Length [ft/ln]		126.42	134.35	272.26	240.67	185.59	124.37	232.35
95th-Percentile Queue Length [veh/ln]		8.74	9.18	16.30	14.72	11.89	8.63	14.29
95th-Percentile Queue Length [ft/ln]		218.61	229.39	407.56	367.88	297.30	215.81	357.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	20.29	20.78	28.14	0.00	32.42	34.41	44.73	19.97	0.00
Movement LOS				C	C	C		C	C	D	B	
d_A, Approach Delay [s/veh]	0.00			24.40			32.68			24.84		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	27.73											
Intersection LOS	C											
Intersection V/C	0.722											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.080	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	200	560	1640
d_b, Bicycle Delay [s]	50.00	40.50	25.92	1.62
I_b,int, Bicycle LOS Score for Intersection	4.132	4.866	2.399	2.683
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Forbes Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.864

Intersection Setup

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00	150.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	38	2	92	159	4	108	117	2081	30	50	2028	190
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	404	12	97	40	8	42	58	113	227	53	87	56
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	442	14	189	199	12	150	175	2194	257	103	2115	246
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	4	47	50	3	38	44	549	64	26	529	62
Total Analysis Volume [veh/h]	442	14	189	199	12	150	175	2194	257	103	2115	246
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.26	0.01	0.11	0.12	0.01	0.09	0.05	0.36	0.36	0.06	0.41	0.14
Intersection LOS	D											
Intersection V/C	0.864											

Intersection Level Of Service Report

Intersection 4: Cabot Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.998

Intersection Setup

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	176	303	401	272	308	215	250	1396	119	623	1556	268
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	107	24	15	109	22	292	73	317	12	54	407	72
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	283	327	416	381	330	507	323	1713	131	677	1963	340
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	71	82	104	95	83	127	81	428	33	169	491	85
Total Analysis Volume [veh/h]	283	327	416	381	330	507	323	1713	131	677	1963	340
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.10	0.24	0.11	0.25	0.25	0.10	0.34	0.08	0.20	0.38	0.20
Intersection LOS	E											
Intersection V/C	0.998											

Intersection Level Of Service Report

Intersection 5: Crown Valley Parkway/Greenfield Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

Intersection Setup

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			50.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Base Volume Input [veh/h]	353	965	20	38	1205	656	689	69	256	30	37	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	360	0	0	732	74	42	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	353	1325	20	38	1937	730	731	69	256	30	37	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	331	5	10	484	183	183	17	64	8	9	8
Total Analysis Volume [veh/h]	353	1325	20	38	1937	730	731	69	256	30	37	31
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Split	Split	Split	Split	Split	Split
Signal Group	0	6	0	5	2	2	0	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.26	0.26	0.02	0.38	0.43	0.22	0.04	0.15	0.02	0.03	0.03
Intersection LOS	D											
Intersection V/C	0.827											

Intersection Level Of Service Report
Intersection 6: Greenfield Drive/Rancho Niguel Road

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.721

Intersection Setup

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	105.00	100.00	100.00	195.00	100.00	100.00	115.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Base Volume Input [veh/h]	425	437	148	103	608	423	342	83	288	218	87	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	74	0	0	42	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	425	511	148	103	650	423	342	83	288	218	87	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	106	128	37	26	163	106	86	21	72	55	22	7
Total Analysis Volume [veh/h]	425	511	148	103	650	423	342	83	288	218	87	26
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.19	0.19	0.06	0.19	0.25	0.10	0.16	0.17	0.13	0.07	0.07
Intersection LOS	C											
Intersection V/C	0.721											

Intersection Level Of Service Report
Intersection 7: Cabot Road/Paseo de Colinas

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.757

Intersection Setup

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	475.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		30.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Base Volume Input [veh/h]	142	584	386	514	610	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	25	33	25	64	34
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	163	609	419	539	674	284
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	152	105	135	169	71
Total Analysis Volume [veh/h]	163	609	419	539	674	284
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.18	0.25	0.16	0.28	0.28
Intersection LOS	C					
Intersection V/C	0.757					

Intersection Level Of Service Report

Intersection 8: Cabot Road/Rapid Falls Road

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: A
 Volume to Capacity (v/c): 0.345

Intersection Setup

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd					
Base Volume Input [veh/h]	27	722	0	0	0	782	0	65	0	25	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	54	0	0	0	38	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	776	0	0	0	820	0	65	0	25	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	194	0	0	0	205	0	16	0	6	0	0	0
Total Analysis Volume [veh/h]	27	776	0	0	0	820	0	65	0	25	0	0	0
Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Prote	Permi	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	8	0	7	0	4	0	5	0	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.23	0.00	0.00	0.00	0.24	0.00	0.04	0.00	0.01	0.00	0.00	0.00
Intersection LOS	A												
Intersection V/C	0.345												

Intersection Level Of Service Report

Intersection 9: Cabot Road/Costco Entrance

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

Intersection Setup

Name	Cabot Rd		Cabot Rd		Costco Ent	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Cabot Rd		Cabot Rd		Costco Ent	
Base Volume Input [veh/h]	642	121	301	689	99	325
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	56	11	51	37	9	90
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	698	132	352	726	108	415
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	175	33	88	182	27	104
Total Analysis Volume [veh/h]	698	132	352	726	108	415
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.08	0.10	0.21	0.06	0.24
Intersection LOS	B					
Intersection V/C	0.603					

Intersection Level Of Service Report

Intersection 10: Forbes Road/Cape Drive

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.186

Intersection Setup

Name	Forbes Rd		Forbes Rd		Cape Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Cape Dr	
Base Volume Input [veh/h]	231	87	1	225	67	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	73	54	0	51	40	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	304	141	1	276	107	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	76	35	0	69	27	1
Total Analysis Volume [veh/h]	304	141	1	276	107	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.19	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.20	0.00	12.71	11.77
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.69	0.69
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.07	0.07	17.28	17.28
d_A, Approach Delay [s/veh]	0.00		0.03		12.69	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.67					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 11: Forbes Road/Getty Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.200

Intersection Setup

Name	Forbes Rd		Forbes Rd		Getty Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Getty Dr	
Base Volume Input [veh/h]	73	151	3	110	113	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	53	1	12	39	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	204	4	122	152	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	51	1	31	38	1
Total Analysis Volume [veh/h]	93	204	4	122	152	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.20	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.83	0.00	10.94	10.44
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.76	0.76
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.24	0.24	19.07	19.07
d_A, Approach Delay [s/veh]	0.00		0.25		10.92	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.00					
Intersection LOS	B					

Laguna Niguel Gateway Specific Plan

Vistro File: C:\...\GSP Baseline.vistro

Scenario 7 Future WP 2045 AM_v2

Report File: C:\...\Future WP 2045 AM.pdf

2/24/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-5 NB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	NB Right	0.680	8.3	A
2	I-5 SB Ramps/Crown Valley Parkway	Signalized	HCM 6th Edition	WB Left	0.623	27.0	C
3	Forbes Road/Crown Valley Parkway	Signalized	ICU 1	WB Thru	0.715	-	C
4	Cabot Road/Crown Valley Parkway	Signalized	ICU 1	EB Thru	0.837	-	D
5	Crown Valley Parkway/Greenfield Drive	Signalized	ICU 1	SB Right	0.823	-	D
6	Greenfield Drive/Rancho Niguel Road	Signalized	ICU 1	NB Thru	0.636	-	B
7	Cabot Road/Paseo de Colinas	Signalized	ICU 1	EB Left	0.679	-	B
8	Cabot Road/Rapid Falls Road	Signalized	ICU 1	NB Thru	0.369	-	A
9	Cabot Road/Costco Entrance	Signalized	ICU 1	NB Thru	0.376	-	A
10	Forbes Road/Cape Drive	Two-way stop	HCM 6th Edition	WB Left	0.234	11.8	B
11	Forbes Road/Getty Drive	Two-way stop	HCM 6th Edition	WB Left	0.330	10.9	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-5 NB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	8.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.680

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶↶↶↶						↶			↶		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	239	0	456	0	0	0	0	2045	822	0	1441	1347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	52	0	0	0	0	0	0	51	74	0	93	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	291	0	456	0	0	0	0	2096	896	0	1534	1347
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	73	0	114	0	0	0	0	524	224	0	384	337
Total Analysis Volume [veh/h]	291	0	456	0	0	0	0	2096	896	0	1534	1347
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	70	0	0	0	0	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	0	0	0	0	0	0	21	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R		C	C	R	C	C	R
C, Cycle Length [s]	46	46		46	46	46	46	46	46
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11		27	27	27	27	27	27
g / C, Green / Cycle	0.24	0.24		0.59	0.59	0.59	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.08	0.16		0.35	0.37	0.37	0.40	0.45	0.45
s, saturation flow rate [veh/h]	3514	2859		5176	1615	1615	3618	1615	1615
c, Capacity [veh/h]	836	680		3039	948	948	2124	948	948
d1, Uniform Delay [s]	14.48	15.80		5.97	6.19	6.19	6.48	7.04	7.04
k, delay calibration	0.11	0.11		0.11	0.13	0.13	0.11	0.22	0.22
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	1.15		0.18	0.85	0.85	0.38	2.53	2.53
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.67		0.59	0.63	0.63	0.68	0.76	0.76
d, Delay for Lane Group [s/veh]	14.73	16.95		6.15	7.04	7.04	6.86	9.57	9.57
Lane Group LOS	B	B		A	A	A	A	A	A
Critical Lane Group	No	Yes		No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.10	1.95		1.78	2.02	2.02	2.37	3.12	3.12
50th-Percentile Queue Length [ft/ln]	27.60	48.68		44.51	50.42	50.42	59.28	77.97	77.97
95th-Percentile Queue Length [veh/ln]	1.99	3.51		3.20	3.63	3.63	4.27	5.61	5.61
95th-Percentile Queue Length [ft/ln]	49.67	87.63		80.11	90.75	90.75	106.71	140.34	140.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.73	0.00	16.95	0.00	0.00	0.00	0.00	6.15	7.04	0.00	6.86	9.57
Movement LOS	B		B					A	A		A	A
d_A, Approach Delay [s/veh]	16.09			0.00			6.51			8.21		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	8.33											
Intersection LOS	A											
Intersection V/C	0.680											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.68	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.685	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2896	0	1141	1141
d_b, Bicycle Delay [s]	4.57	22.79	4.21	4.21
I_b,int, Bicycle LOS Score for Intersection	1.560	4.132	2.794	3.144
Bicycle LOS	A	D	C	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: I-5 SB Ramps/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	27.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.623

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↰↱↰↱			↰			↰		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	185.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	984	7	716	0	1819	318	433	1207	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	69	0	125	18	0	145	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	984	7	785	0	1944	336	433	1352	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	246	2	196	0	486	84	108	338	0
Total Analysis Volume [veh/h]	0	0	0	984	7	785	0	1944	336	433	1352	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	2	0	8	0	7	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	10	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	30	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	45	45	0	32	0	23	55	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	10	0	23	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No	No		No		No	No	
Maximum Recall					No	No		No		No	No	
Pedestrian Recall					No	No		No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	R	L	C
C, Cycle Length [s]		100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		44	44	44	29	29	15	48
g / C, Green / Cycle		0.44	0.44	0.44	0.29	0.29	0.15	0.48
(v / s)_i Volume / Saturation Flow Rate		0.19	0.19	0.24	0.23	0.21	0.12	0.26
s, saturation flow rate [veh/h]		3514	1811	3230	8626	1615	3514	5176
c, Capacity [veh/h]		1531	789	1407	2527	473	532	2507
d1, Uniform Delay [s]		19.57	19.56	21.04	32.27	31.57	41.08	18.00
k, delay calibration		0.50	0.50	0.50	0.11	0.23	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.87	1.69	1.60	0.51	4.08	3.09	0.18
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.43	0.43	0.56	0.77	0.71	0.81	0.54
d, Delay for Lane Group [s/veh]		20.44	21.25	22.64	32.78	35.65	44.16	18.18
Lane Group LOS		C	C	C	C	D	D	B
Critical Lane Group		No	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		5.32	5.66	6.94	8.48	7.65	5.34	7.03
50th-Percentile Queue Length [ft/ln]		133.09	141.50	173.54	212.06	191.15	133.48	175.67
95th-Percentile Queue Length [veh/ln]		9.11	9.56	11.26	13.26	12.18	9.13	11.37
95th-Percentile Queue Length [ft/ln]		227.69	239.04	281.57	331.47	304.52	228.22	284.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	20.71	21.25	22.64	0.00	32.78	35.65	44.16	18.18	0.00
Movement LOS				C	C	C		C	D	D	B	
d_A, Approach Delay [s/veh]	0.00			21.57			33.20			24.48		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	27.00											
Intersection LOS	C											
Intersection V/C	0.623											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.100	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	820	560	1020
d_b, Bicycle Delay [s]	50.00	17.41	25.92	12.01
I_b,int, Bicycle LOS Score for Intersection	4.132	4.490	2.312	2.541
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Forbes Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

Intersection Setup

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00	150.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Forbes Rd			Forbes Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	42	4	70	142	5	139	94	1890	85	126	1725	111
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	93	3	21	66	10	63	27	56	327	78	109	27
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	135	7	91	208	15	202	121	1946	412	204	1834	138
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	2	23	52	4	51	30	487	103	51	459	35
Total Analysis Volume [veh/h]	135	7	91	208	15	202	121	1946	412	204	1834	138
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.05	0.12	0.01	0.12	0.04	0.35	0.35	0.12	0.36	0.08
Intersection LOS	C											
Intersection V/C	0.715											

Intersection Level Of Service Report

Intersection 4: Cabot Road/Crown Valley Parkway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.837

Intersection Setup

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd			Crown Valley Pkwy			Crown Valley Pkwy		
Base Volume Input [veh/h]	89	296	389	249	264	284	243	1443	102	344	1419	184
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	35	16	8	48	22	60	322	355	27	37	110	118
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	124	312	397	297	286	344	565	1798	129	381	1529	302
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	78	99	74	72	86	141	450	32	95	382	76
Total Analysis Volume [veh/h]	124	312	397	297	286	344	565	1798	129	381	1529	302
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.09	0.23	0.09	0.19	0.19	0.17	0.35	0.08	0.11	0.30	0.18
Intersection LOS	D											
Intersection V/C	0.837											

Intersection Level Of Service Report
Intersection 5: Crown Valley Parkway/Greenfield Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.823

Intersection Setup

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			50.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Crown Valley Pkwy			Crown Valley Pkwy			Greenfield Dr			Greenfield Dr		
Base Volume Input [veh/h]	458	1106	11	20	1127	649	610	35	220	33	55	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	639	0	0	177	28	65	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	458	1745	11	20	1304	677	675	35	220	33	55	53
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	115	436	3	5	326	169	169	9	55	8	14	13
Total Analysis Volume [veh/h]	458	1745	11	20	1304	677	675	35	220	33	55	53
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	2	0	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.34	0.34	0.01	0.26	0.40	0.20	0.02	0.13	0.02	0.04	0.04
Intersection LOS	D											
Intersection V/C	0.823											

Intersection Level Of Service Report
Intersection 6: Greenfield Drive/Rancho Niguel Road

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.636

Intersection Setup

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	105.00	100.00	100.00	195.00	100.00	100.00	115.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Greenfield Dr			Greenfield Dr			Rancho Niguel Rd			Rancho Niguel Rd		
Base Volume Input [veh/h]	233	632	195	92	354	341	445	104	353	123	39	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	28	0	0	65	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	233	660	195	92	419	341	445	104	353	123	39	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	165	49	23	105	85	111	26	88	31	10	5
Total Analysis Volume [veh/h]	233	660	195	92	419	341	445	104	353	123	39	18
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.25	0.25	0.05	0.12	0.20	0.13	0.19	0.21	0.07	0.03	0.03
Intersection LOS	B											
Intersection V/C	0.636											

Intersection Level Of Service Report Intersection 7: Cabot Road/Paseo de Colinas

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	⇐⇐⇐⇐⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	1	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	475.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		30.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name	Cabot Rd		Paseo de Colinas		Paseo de Colinas	
Base Volume Input [veh/h]	143	373	557	675	401	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	37	17	78	25	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	410	574	753	426	156
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	103	144	188	107	39
Total Analysis Volume [veh/h]	180	410	574	753	426	156
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.12	0.34	0.22	0.17	0.17
Intersection LOS	B					
Intersection V/C	0.679					

Intersection Level Of Service Report

Intersection 8: Cabot Road/Rapid Falls Road

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: A
 Volume to Capacity (v/c): 0.369

Intersection Setup

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd			Rapid Falls Rd		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cabot Rd			Cabot Rd				Rapid Falls Rd			Rapid Falls Rd		
Base Volume Input [veh/h]	23	834	0	0	0	713	0	100	0	26	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	50	0	0	0	33	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	884	0	0	0	746	0	100	0	26	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	221	0	0	0	187	0	25	0	7	0	0	0
Total Analysis Volume [veh/h]	23	884	0	0	0	746	0	100	0	26	0	0	0
Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Prote	Permi	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	8	0	7	0	4	0	5	0	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.26	0.00	0.00	0.00	0.22	0.00	0.06	0.00	0.02	0.00	0.00	0.00
Intersection LOS	A												
Intersection V/C	0.369												

Intersection Level Of Service Report

Intersection 9: Cabot Road/Costco Entrance

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.376

Intersection Setup

Name	Cabot Rd		Cabot Rd		Costco Ent	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Cabot Rd		Cabot Rd		Costco Ent	
Base Volume Input [veh/h]	692	72	71	573	26	114
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	26	6	24	62	12	33
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	718	78	95	635	38	147
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	180	20	24	159	10	37
Total Analysis Volume [veh/h]	718	78	95	635	38	147
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.05	0.03	0.19	0.02	0.09
Intersection LOS	A					
Intersection V/C	0.376					

Intersection Level Of Service Report

Intersection 10: Forbes Road/Cape Drive

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.234

Intersection Setup

Name	Forbes Rd		Forbes Rd		Cape Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Cape Dr	
Base Volume Input [veh/h]	138	47	2	214	100	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	27	0	78	62	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	169	74	2	292	162	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	19	1	73	41	1
Total Analysis Volume [veh/h]	169	74	2	292	162	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.23	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.70	0.00	11.82	10.89
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.92	0.92
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.11	0.11	22.96	22.96
d_A, Approach Delay [s/veh]	0.00		0.05		11.81	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.78					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 11: Forbes Road/Getty Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.330

Intersection Setup

Name	Forbes Rd		Forbes Rd		Getty Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Forbes Rd		Forbes Rd		Getty Dr	
Base Volume Input [veh/h]	79	71	3	21	241	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	26	1	17	61	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	97	4	38	302	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	24	1	10	76	1
Total Analysis Volume [veh/h]	84	97	4	38	302	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.33	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.57	0.00	10.90	10.87
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	1.48	1.48
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.21	0.21	37.07	37.07
d_A, Approach Delay [s/veh]	0.00		0.72		10.90	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	6.37					
Intersection LOS	B					

APPENDIX C

GATEWAY SPECIFIC PLAN LAND USES

GATEWAY SPECIFIC PLAN

DEVELOPMENT ENTITLEMENT MANAGEMENT SYSTEM (DEMS)

Section 4.3.4 of the Gateway Specific Plan

District C/D			AM PEAK		PM PEAKS	
			Inbound	Outbound	Inbound	Outbound
Existing 2010			95	50	60	75
Net Additional			900	400	600	1200
Total Future			995	450	660	1275
Date	Project Approvals					
Existing 2010 (No Longer Applicable)						
7/10/2012	SP 11-03	Mill Creek	37	142	151	80
6/10/2014	SP 13-05	Picerne Group	54	214	224	120
Remaining Trips Available			904	94	285	1075

District E			AM PEAK		PM PEAKS	
			Inbound	Outbound	Inbound	Outbound
Existing 2010			175	105	200	250
Net Additional			345	680	760	570
Total Future			520	785	960	820
Date	Project Approvals					
		Existing 2010	175	105	200	250
7/23/2013	SP 12-13	Gateway Village	18	159	175	86
10/13/2015	SP 14-05	Forbes Rd Apts	13	115	153	77
5/22/2018	SP15-08	2,800 sf commercial	2	1	5	6
10/22/2019	SP15-08A01	Gateway Senior	11	6	11	13
Projected Trips Per HR Green Traffic Study						
Projected Trips Per HR Green Traffic Study						
Projected Trips Per HR Green Traffic Study						
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Projected Trips Per HR Green Traffic Study						

District H		AM PEAK		PM PEAKS	
		Inbound	Outbound	Inbound	Outbound
	Existing 2010	175	100	75	180
	Net Additional	550	520	740	755
	Total Future	725	620	815	935
Date	Project Approvals				
Remaining Trips Available		725	620	815	935

GATEWAY SPECIFIC PLAN
STATISTICAL SUMMARY DETAIL

October 14, 2021

District A GALIVAN BASIN				Maximum SQ.FT.	76,480	Existing SQ. FT.	76,480	Proposed SQ. FT.	0	Available SQ. FT.	0
GP Profile 4A				Maximum D.U.	0	Existing D.U.	0	Proposed D.U.	0	Available D.U.	0

ZONING	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft.	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
BP	27201 Cabot Rd	Public Storage	3.11	76,480	0	0.56		0	0	0	0	401	Complete
Subtotal			3.11	76,480	0			0	0	0	0		

District B CAMINO CAP BUSINESS PARK				Maximum SQ.FT.	323,200	Existing SQ. FT.	215,028	Proposed SQ. FT.	0	Available SQ. FT.	108,172
GP Profile 4B				Maximum D.U.	0	Existing D.U.	0	Proposed D.U.	0	Available D.U.	0

DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft.	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
BP	27324 Camino Cap	Crown Valley Business Park	8.56	76,448	0	0.21		0	0	0	0	402	
BP	27392 Camino Cap	Pacbell Office 1	2.63	11,000	0	0.10		0	0	0	0	402	
BP	27402 Camino Cap	Pacbell Office 2	2.10	25,777	0	0.28		0	0	0	0	402	
BP	27532 Camino Cap	SDG&E Substation	2.22	n/a	0			0	0	0	0	402	
BP	27592 Camino Cap	Hexagon Recon LLS	1.00	20,000	0	0.46		0	0	0	0	402	
BP	27622 Camino Cap	Pinto Building/Park-a-Pet	1.07	20,000	0	0.43		0	0	0	0	402	
BP	27652 Camino Cap	George Building/ Enshin Karate	1.03	24,000	0	0.53		0	0	0	0	402	
BP	27762 Camino Cap	Boukather Building/Caliber Collision	1.15	17,339	0	0.35		0	0	0	0	402	
BP	27692- 27694 Camino Cap	Hill Building/AAMCO	1.16	20,464	0	0.40		0	0	0	0	402	
Subtotal			20.92	215,028	0			0	0	0	0		

District C HILLSIDE OFFICE - RESIDENTIAL				Maximum SQ.FT.	305,460	Existing SQ. FT.	0	Proposed SQ. FT.	0	Available SQ. FT.	305,460
GP Profile 4C				Maximum D.U.	220	Existing D.U.	0	Proposed D.U.	0	Available D.U.	220

DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft.	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
MU	N/W Corner Crown Valley/ Cabot		7.00	0	0			0	0	0	0	407	Undeveloped hillside
Subtotal			7.00	0	0			0	0	0	0		

District D CABOT OFFICE - RESIDENTIAL				Maximum SQ.FT.	0	Existing SQ. FT.	0	Proposed SQ. FT.	0	Available SQ. FT.	0		
GP Profile 4D				Maximum D.U.	709	Existing D.U.	284	Proposed D.U.	425	Available D.U.	0		
DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft.	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
MU	25891 Crown Valley/ 27961 Cabot	Mill Creek Residential Trust (Apex) -Apts	3.31	0	0		86	0	284	0		406	Transfer of 84 units from District E approved w/ SP 11-03P (Mill Creek), PC Reso 12-11, 7/10/2012. 406 CONSTRUCTED.
MU	25895 Crown Valley/ 27930 Cabot	The Picerne Group - Apts	6.40	0	0		72	0	425	0	192	406	225 units transferred from District E to District D and 200 units transferred from District H to District D w/ SP13-05 (Picerne Group); June 10, 2014 (PC Reso 14-07); 233 units constructed/occupied; 192 in plancheck October 2021
Subtotal			9.71	0	0			0	709	0	192		

District E MIXED-USE VILLAGE				Maximum SQ.FT.	390,102	Existing SQ. FT.	251,980	Proposed SQ. FT.	17,444	Available SQ. FT.	120,678		
GP Profile 4E				Maximum D.U.	1,118	Existing D.U.	0	Proposed D.U.	759	Available D.U.	359		
DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft.	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
MU	26022 Cape Dr	Carpenter Building	1.12	9,600	0			0	0	0	0	405	
MU	25991 Crown Valley Pkwy	Crown Valley Carwash	0.84	1,624	0			0	0	0	0	405	
MU	27061 Forbes Rd	3 Flags Center	5.31	71,860	0			0	0	0	0	403	
MU	27742 Forbes Rd	Cavora Apartments (Gateway Village)	5.12	78,400	0	0.03	68	5,902	348	5,902		403/405	348 CONSTRUCTED.
MU	27665 Forbes Rd	Vilara Apartments (Forbes Rd Apartments)	3.84	68,296	0	0.05	78	8,742	300	8,742		403	300 CONSTRUCTED.
MU	27762 Forbes Rd	Alliance (Gateway Senior Community)	1.10	12,600	0	1.90	103	2,800	111	2,800	111	403	Grading permit issued October 2021 - under construction
MU	27812 Forbes Rd	Church	1.03	9,600	0			0	0	0	0	405	
Subtotal			18.36	251,980	0			17,444	759	17,444	111		

District F SOUTH CABOT				Maximum SQ.FT.	173,900	Existing SQ. FT.	173,900	Proposed SQ. FT.	0	Available SQ. FT.	0		
GP Profile 4F				Maximum D.U.	142	Existing D.U.	0	Proposed D.U.	142	Available D.U.	0		
DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft.	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
MU	28100 Cabot Rd	Career Lofts/United American Properties (Skye Apts)	2.13	0	0		66.67	0	142	0		474	PC Approved 6/12/2012. 142 CONSTRUCTED.
MU	28202 Cabot Rd	Cabot/Crown Financial Building	5.15	173,900	0			0	0	0	0	474	
Subtotal			7.28	173,900	0			0	142	0	0		

District G CROWN VALLEY RETAIL COMM. - RES.				Maximum SQ.FT.	247,639		Existing SQ. FT.	192,660		Proposed SQ. FT.	0		Available SQ. FT.	54,979	
GP Profile 4G				Maximum D.U.	142		Existing D.U.	0		Proposed D.U.	0		Available D.U.	142	
DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS		
MU	27972 Cabot Rd	Costco	9.67	117,260	0			0	0	0	0	404	Need Net Acerage post Road Widening		
MU	28872 Crown Valley Pkwy	All Size Storage	3.51	75,400	0			0	0	0	0	404	Need Net Acerage post Road Widening		
Subtotal			13.18	192,660	0			0	0	0	0				

District H TRANSIT ORIENTED MIXED-USE CORR.				Maximum SQ.FT.	404,400		Existing SQ. FT.	131,928		Proposed SQ. FT.	0		Available SQ. FT.	272,472	
GP Profile 4H				Maximum D.U.	663		Existing D.U.	0		Proposed D.U.	309		Available D.U.	354	
DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D. U.	FAR	DU/AC	Proposed/ Approved Sq. Ft	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS		
MU	27882 Forbes Rd	Medical Office	2.72	33,700	0			0	0	0	0	475	Need Net Acerage post Road Widening		
MU	27912 Forbes Rd	Hundley Building/ Econo Lube-N-Tune	0.93	11,586	0			0	103	0	0	475	Under entitlement review - 309 unit multi-family development as of 9.9.21 to be located at 27912, 27942, and 27972 Forbes Rd		
MU	27942 Forbes Rd	Buck Building/ Tucker Tire	0.56	12,044	0			0	103	0	0	475	Under entitlement review - 309 unit multi-family development as of 9.9.21 to be located at 27912, 27942, and 27972 Forbes Rd		
MU	27972 Forbes Rd	Dunn Building/DA Imports	0.84	12,644	0			0	103	0	0	475	Under entitlement review - 309 unit multi-family development as of 9.9.21 to be located at 27912, 27942, and 27972 Forbes Rd		
MU	28002 Forbes Rd	OC Auto Collision	0.86	15,220	0			0	0	0	0	475			
MU	28032 Forbes Rd	South Coast Shingle	0.83	13,500	0			0	0	0	0	475			
MU	28062 Forbes Rd	Forbes Road Associates	0.85	15,008	0			0	0	0	0	475			
MU	28092 Forbes Rd	Sepulveda Building Materials	5.66	18,226	0			0	0	0	0	475			
MU	Forbes Rd	Metrolink Station	4.20	0	0			0	0	0	0	475	Completed April 2002, Need Spaces, Existing & Expansion, Acerage		
Subtotal			17.45	131,928	0			0	309	0	0				

District I CAMINO CAP COMMERCIAL SERVICE				Maximum SQ.FT.	138,740	Existing SQ. FT.	111,185	Proposed SQ. FT.	0	Available SQ. FT.	27,555		
GP Profile 4I				Maximum D.U.	0	Existing D.U.	0	Proposed D.U.	0	Available D.U.	0		
DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
CS	27862 Camino Cap	Satterlee/ Mission Viejo Glass	0.79	10,000	0			0	0	0	0	477	
CS	27882 Camino Cap	Smisek/ Precision Auto Collision	0.71	14,200	0			0	0	0	0	477	
CS	28112 Camino Cap	Enterprise Car Sales/Rental	2.00	4,990	0			0	0	0	0	477	
CS	27992- 28052 Camino Cap	Hunsaker Building	3.61	20,800	0			0	0	0	0	477	
CS	28142- 28162 Camino Cap	Camino Capistrano Business Center	2.00	13,400	0			0	0	0	0	477	
CS	28432 Camino Cap	Allen Hyundai	1.34	20,470	0			0	0	0	0	477	Approved remodel & addition 2012.
CS	28332 Camino Cap	Allen Cadillac/ GMC	4.28	27,325	0			0	0	0	0	477	Approved remodel & addition 2012.
Subtotal			14.73	111,185	0			0	0	0	0		

District J STAR DRIVE				Maximum SQ.FT.		Existing SQ. FT.		Proposed SQ. FT.		Available SQ. FT.					
				141,860		125,977		0		15,883					
GP Profile 4J				Maximum D.U.		Existing D.U.		Proposed D.U.		Available D.U.					
				0		0		0		0					
DISTRICT		LOCATION		DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/ Approved Sq. Ft	Proposed/ Approved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS
CS	Parcel 1	Star Dr	Mercedes Benz of Laguna Niguel	8.57		88,500	0			0	0	0	0	482	
CS	Parcel 2	TPM 97-167	Mercedes Benz of Laguna Niguel	3.45		37,477	0			0	0	0	0	482	
CS	Parcel 3	TPM 97-167	Mercedes Benz of Laguna Niguel	2.18		0	0			0	0	0	0	482	
Subtotal				14.20		125,977	0			0	0	0	0		

District K SOUTH CAMINO CAP.				Maximum SQ.FT.		58,150	Existing SQ. FT.		13,535	Proposed SQ. FT.		0	Available SQ. FT.		44,615
GP Profile 4K				Maximum D.U.		0	Existing D.U.		0	Proposed D.U.		0	Available D.U.		0
DISTRICT	LOCATION	DECRPTION	NET ACRES	Existing Sq. Ft.	Existing D.U.	FAR	DU/AC	Proposed/A pproved Sq. Ft	Proposed/Ap proved D.U.	Under Construction Sq. Ft.	Under Construction D.U.	TAZ	STATUS/COMMENTS		
CS	28662 Camino Cap	Arco AM/PM	0.62	2,108	0			0	0	0	0	483			
CS	28692 Camino Cap	Chevron	0.51	2,474	0			0	0	0	0	483			
CS	28698 Camino Cap	A's Burger	0.22	1,437	0			0	0	0	0	483			
CS	28722 Camino Cap	Proposed Popeyes (formerly Carl's Jr)	0.60	2,160	0			0	0	0	0	483			
CS	28742 Camino Cap	America's Best Value Laguna Inn & Suites	0.36	2,016	0			0	0	0	0	483			
CS	28782 Camino Cap	In-N-Out Burger	0.50	1,340	0			0	0	0	0	483			
CS	28792 Camino Cap	Mobile Car Wash	0.50	2,000	0			0	0	0	0	483			
Subtotal			3.31	13,535	0			0	0	0	0				

Legend

Name	Apt Units	SF
1 Skye	142	-
2 Apex	284	-
3 Blu & "Wrap" ¹	425	-
4 Cavora	348	6,082
5 Vilara	300	8,742
6 Alliance ²	111	2,800
7 South Forbes ³	309	-
TOTAL	1,919	17,624

¹ Blu – 233 occupied; "Wrap" – 192 plancheck/under construction

² Grading permit issued 10.21

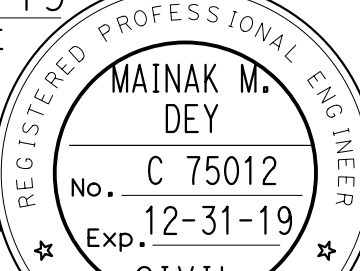
³ In entitlement process (309 as of 9.9.21)

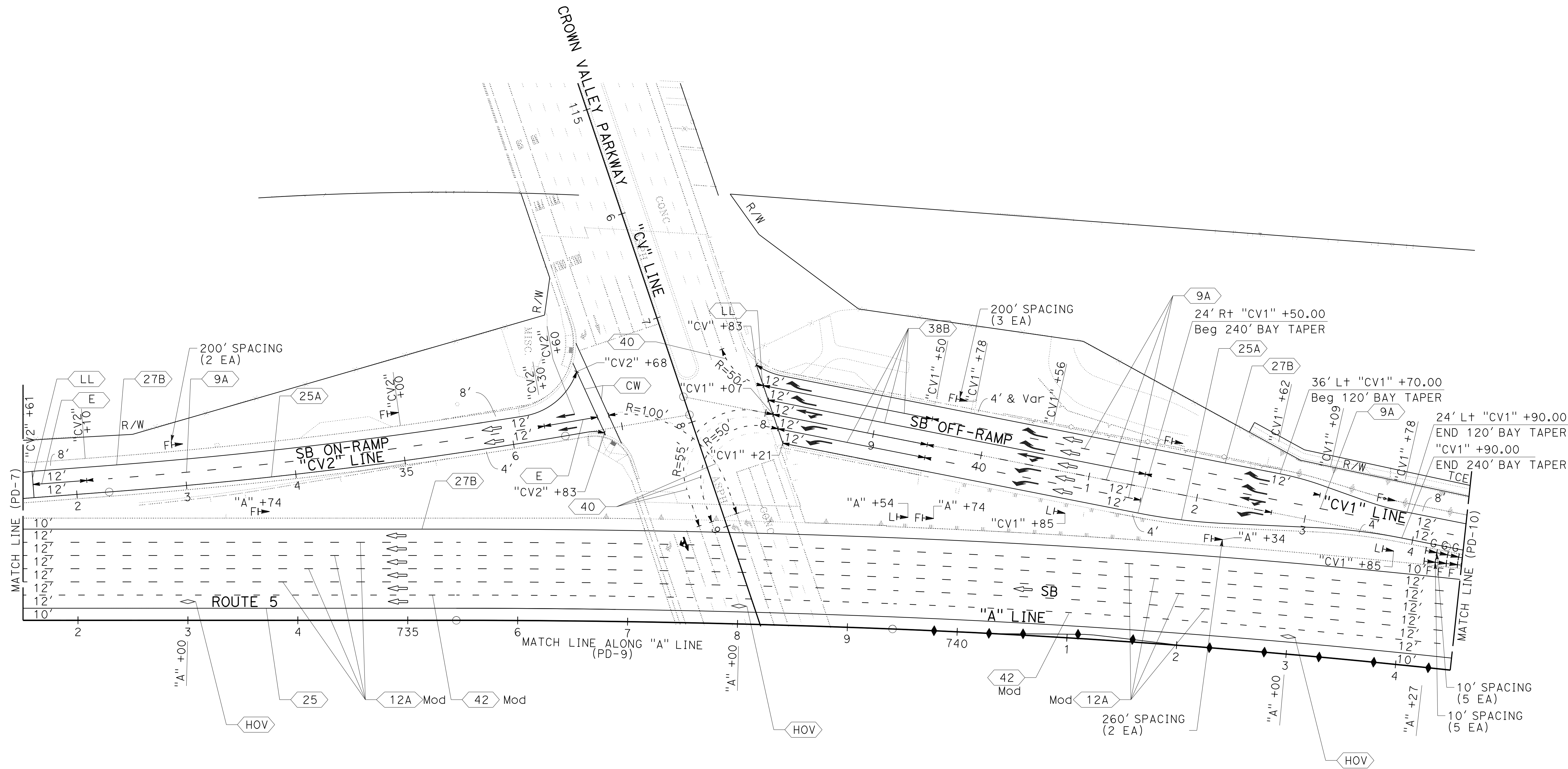


APPENDIX D

PROPOSED LANE MODIFICATION PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Oran	5	12.4/14.5	562	1351
 REGISTERED CIVIL ENGINEER			5-6-19 DATE		
5-13-19 PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
WKE, Inc. 1851 E. FIRST STREET SUITE 1400 SANTA ANA, CA 92705			ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863-1584		



SCALE: $1'' = 50'$

PD - 8

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR				
et Caltrans®	CARLOS CADENA	CALCULATED-DESIGNED BY	PHILLIP YANG	REVISED BY	
		CHECKED BY	MAINAK DEY	DATE REVISED	

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	5	12.4/14.5	563	1351

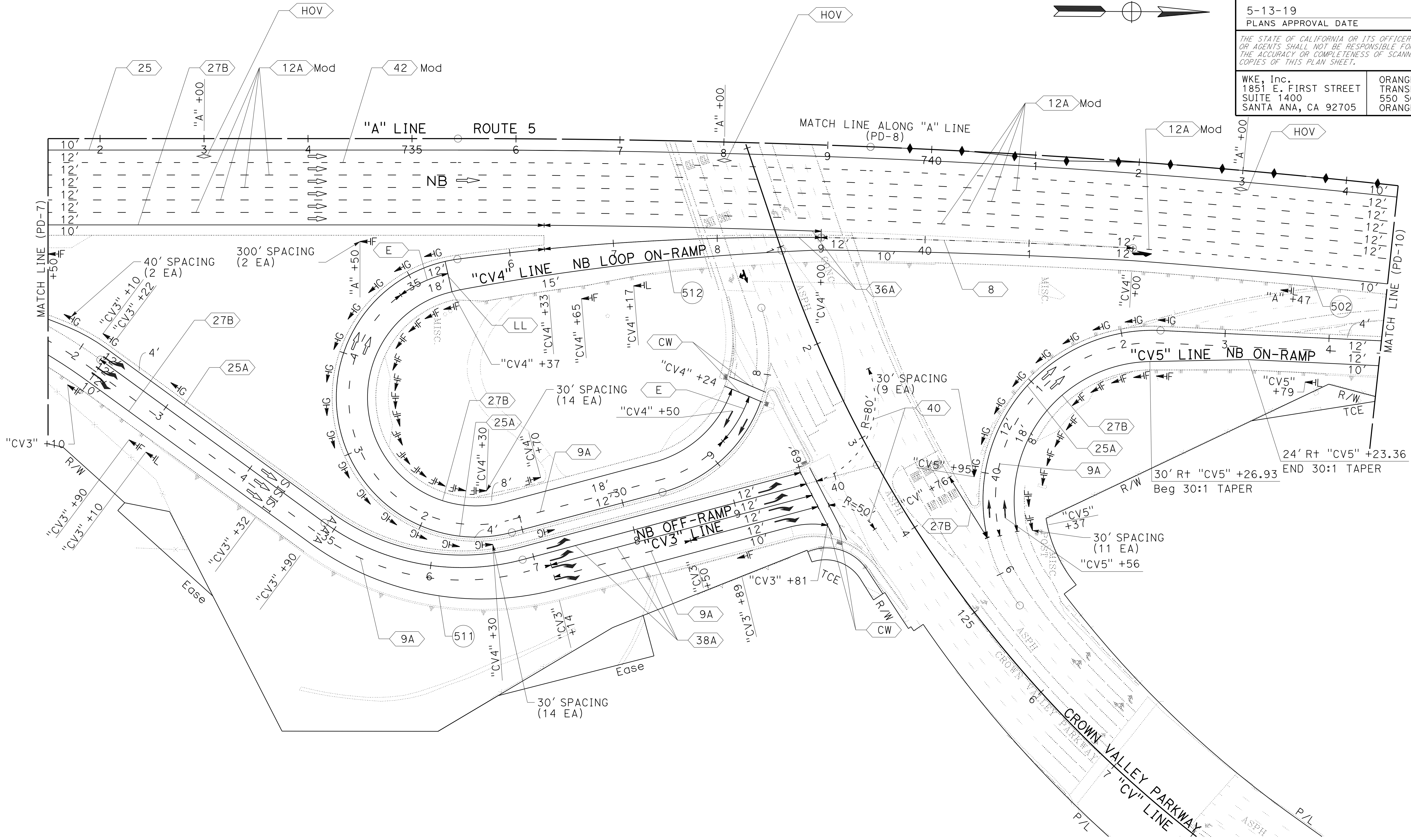
5-13-19
PLANS APPROVAL DATE

5-6-19
DATE

WKE, Inc.
1851 E. FIRST STREET
SUITE 1400
SANTA ANA, CA 92705

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 SOUTH MAIN STREET
ORANGE, CA 92863-1584

REGISTERED CIVIL ENGINEER
No. C 75012
Exp. 12-31-19
CIVIL
STATE OF CALIFORNIA



CURVE DATA				
No. (X)	R	Δ	T	L
502	7405.00'	02°19'16"	150.02'	300.00'
511	281.37'	08°25'13"	134.22'	250.48'
512	2369.31'	10°31'24"	174.41'	348.20'

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-9

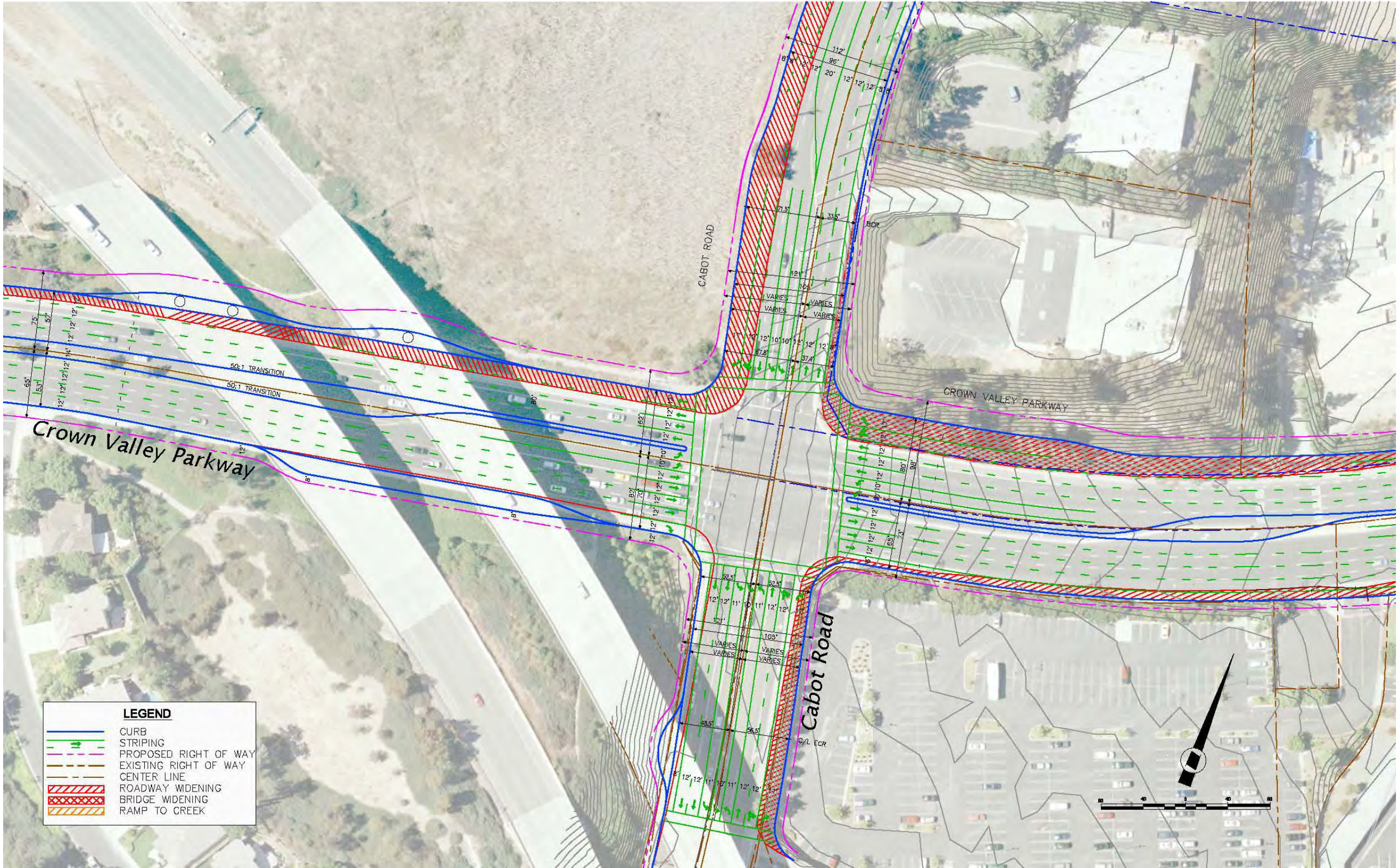


FIGURE 3-4A Crown Valley Parkway Widening